Roadmaster 07

Flail mower

EC Declaration of conformity for machines

Manufacturer: Votex B.V.
Adress : Groen 2
Postal code : 6666 LP
Town: HETEREN (Netherlands)

declare that the following machines

Votex Roadmaster 07 types : 1907; 2307 and 2607
nr.....

- meets the requirements of the directive

  Directive 98-37-EC

  and the national legislation concerning the execution of this directive

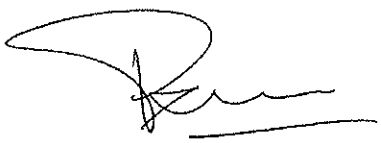
- meets the requirements of further EEC directives (only fill in if applicable)

and further declare that ;

the following (parts of) harmonised norms have been applied

- EN 292-1 1994 / EN 292-2 1996
- EN 745 1999

Heteren .....



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(signature)

P.Krieckaert
General Manager.

User's Manual and Parts List
Votex Roadmaster 07

Applicable to the following types:

Roadmaster 1907
Roadmaster 2307
Roadmaster 2607

delivered after 01 January 2006

HK 001

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1. Introduction

You have acquired a Votex Roadmaster 07 flail mower. We wish you much success with this mower and thank you for your confidence in our organization.
This manual is intended for end users and service engineers.
Work that may only be done by service engineers is indicated as such in this book.
This manual contains complete information about safety, operation and maintenance of the Votex Roadmaster 07 flail mowers. We urge you to study this manual carefully, and then keep it in a safe place for future reference.
Following the rules and recommendations herein described will ensure a properly operating mower and reduce the risk of accidents!
The Votex Roadmaster 07 flail mower is a machine with which plant growth is struck off by flails fixed to a fast-rotating shaft, then reduced and thrown back to the ground through a hood.
The machine is intended to be used with tractors with a minimum wheel track of 1.50 m. It enables you to mow and shred grass, weeds and wood wildshoots having a maximum diameter of 5 cm.
The machines have been designed for mowing:

- verges
- airfields
- fallow grounds and other stretches of grass

Important! Any other use is not in accordance with the intended purpose!

The tractor operator must be appropriately qualified and have experience in driving tractors.

The Votex Roadmaster 07 flail mower must not be used for mowing operations in the vicinity of areas presenting fire and/or explosion hazards.

The flail mower may be used only when the ground roller rests on the ground with its full width.

Votex B.V. is constantly working on improving its products. It therefore reserves the right to make any such changes, modifications and/or improvements as it deems necessary. However, this does not imply any obligation on its part to make such changes, modifications and/or improvements to machines previously supplied.

2. Safety

2.1. Safety instructions.

This symbol points to acute danger to the life and/or health of human beings and animals!

This symbol is a warning of possible damage to the mower if the user does not follow the instructions.

TIP This gives the user suggestions/recommendations for performing certain tasks safer and easier.

- Study the user's manual thoroughly so that you will be aware of situations that may cause danger. Make sure you are familiar with the operation of the tractor, and, in particular, how to stop it in an emergency. Pass all safety instructions on to other users!
- Never let the rotor shaft run when the ground roller is not resting on the ground with its full length!
- The exhaust gases of combustion engines contain carbon monoxide, an odourless and lethal poison. So, never let the tractor engine run in a confined space.
- In addition to the specific directions contained in this user's manual, also observe the general regulations in force with regard to safety and the prevention of accidents!
- The pictograms on the machine provide important directions for safe use. Following the directions will serve your own safety. Replace any damaged pictograms!
- Wear ear protectors at noise levels exceeding 85 dB(A). Never when using public roads, however!
- When using the machine, wear as much as possible close-fitting clothes!
- When using public roads, always observe the road traffic regulations in force!
- Tractors with machines attached to them may be driven only by appropriately qualified persons with sufficient experience!
- Observe the maximum admissible transport dimensions!
- If necessary, fit a lighting beam and/or warning signs!
- For road transport, put the machine into the appropriate position and lock it in accordance with directions (see chapter 4)!

- When driving on the road with the machine raised, ensure the operating lever of the lifting device has been secured against unintentional lowering!
- If necessary, fit front weights. Always do so in accordance with the instructions of the tractor manufacturer.
- Observe the requirements for the maximum admissible axle load/total weight and the minimum front axle load required (road traffic regulations)!
- Do not take any passengers to ride along with you on any part, irrespective of their age!
- Hoses and cables for cylinders and lighting are to be disposed in such a way that they cannot be damaged under any transport and operating conditions. Be especially mindful of the fact that wrongly placed hoses may activate unintended movements or impede necessary functions!
- When taking bends, always bear in mind the greater width and length of your tractor and the greater mass (inertia) of the tractor + mower!
- Before driving off and putting the mower into operation, look around the mower and tractor, making sure there are no persons within working range. Make sure you have an unobstructed view!
- It is prohibited to come within the mower's working and danger range.

Keep your distance! Objects (stones and the like) may be hurled away.

- Operate the mower only when it is complete and all safeguards are intact.
- After bumping into an obstacle, check the mower for any damage.
- Immediately repair any damage before resuming working with the machine!

RESIDUAL RISK! The safeguards on the Votex mowers meet the relevant requirements as set by the European Commission!

Nonetheless, there will be some residual risk to be taken into account. Objects in the terrain may be picked up and hurled away by the flails! This may cause serious injury or damage up to a distance of about 50 metres! In order to minimize this risk, act in accordance with the following safety recommendations:

1. Always proceed in accordance with the requirements of the road maintenance authority and observe the local ordinances and regulations.
2. If possible, close off roads, cycle paths, footpaths and bridle paths. If this is not feasible, use a mobile road barrier so that road users will stay at a safe distance from the machine.
3. Close off navigable waterways when you have to mow along them. If this is not feasible, put up warming signs!

- The speed must be adapted to the terrain and working conditions!
- It is dangerous to work with the tractor on slopes! In order to prevent the tractor from toppling over on slopes, bear in mind the following points.
- Do not accelerate abruptly or brake suddenly when driving up or down a slope!
- Slowly let in the tractor-drive clutch and never drive down a slope without having put the tractor into a gear!
- When driving the tractor on slopes and in bends, adjust your speed accordingly!

- Especially on slopes, always be alert to bumps, holes and other hidden dangers.
- Control of a tractor already sliding down can never be regained by braking!!
- Never mow on slopes having a gradient of more than 5%.
- Mow only in daylight or good artificial light!
- For transport, the PTO shaft must be switched off and the rotor shaft must be at a complete standstill!

Stay outside the link-motion range of moving parts!

- Ensure to avoid toppling over! Work only on a sufficiently solid ground!
- The following measures must be taken when leaving the tractor and/or when work is to be done on the machine or PTO shaft:
- Switch off the PTO shaft.
- Put the gear lever of the tractor into neutral.
- Pull the parking brake of the tractor.
- Set the machine entirely down.
- Stop the tractor engine and remove the key from the ignition lock.
- Always wait for the rotor shaft to stop completely before approaching the machine!

Machine is still coming to a standstill! Stay away from rotating parts until they have stopped completely!

- Make sure the supporting leg is in the lower locked position when coupling or uncoupling the mower!
- Proceed very carefully when coupling and uncoupling the mower. Be particularly alert to the danger of getting trapped due to accidental operation of the lifting device. Secure the machine laterally by sufficiently tightening the stabilizers.

PTO shaft:

- Only use the PTO shaft with freewheel specified by the manufacturer.
- Protecting tubes and guards at the PTO shaft and the guards on tractor and machine must be properly fixed and in good condition!
- Ensure the specified overlapping of PTO shaft halves and protecting tubes, both in the transport and in the operating position (see user's manual of universal shaft manufacturer).
- The PTO shaft may be coupled and uncoupled only when the tractor engine has stopped, the ignition key has been removed, and the machine rests on the ground.
- Always ensure that the PTO shaft is properly mounted and blocked!
- Secure the guard of the PTO shaft against turning with the shaft by fastening both chains to a fixed point on the tractor and machine sides!
- Before switching on the PTO shaft, ensure that the speed and direction of rotation of the PTO shaft correspond to the machine to be driven! The speed and direction of rotation are indicated on the mower by a pictogram!
- The rpm indicated must never be exceeded!
- Never switch the PTO shaft on when the engine is not running!
- Stay away from a rotating PTO shaft!
- Always switch the PTO shaft off when the angles of the universal joints threaten to

become too great!
- Place an uncoupled PTO shaft into the bracket provided for this purpose on the three-point linkage!
- Fix the protective bush onto the PTO shaft of the tractor as soon as the PTO shaft has been uncoupled!

Hydraulic system (if provided)

- A hydraulic system operates under high pressure! If a leak should occur in it, depressurize the system immediately, collect oil leaking away, and replace defective parts!

Never put your finger to a hydraulic leak! Liquid under high pressure easily penetrates skin and clothes, and causes serious injury. If this should happen, consult a physician immediately! Oil leaking away is harmful to the environment! Take measures to prevent oil leakage!

- Regularly check hydraulic hoses, lines and all connections. Replace them when damaged or aged. New hoses must meet the technical requirements of the manufacturer!
- Shut down the tractor engine, remove the ignition key and depressurize the hydraulic system before coupling or uncoupling the machine or before doing any work on the hydraulic system.
- Immediately fit the dust caps on disconnected hydraulic hoses.
- Lay the hoses in such a way as to exclude any soiling and damage!

Maintenance and inspections:

Maintenance and inspections on the underside of the machine must r be carried out when the machine is held only by the tractor lifting device. Always take special precautions in order to prevent an unexpected lowering of the machine. Use a tackle or horse whose minimum carrying capacity exceeds or is equal to the mass of the machine. (See identification plate)

Vibrations in the mower are usually caused by the rotor shaft being out of balance. These vibrations may cause serious damage to the mower. When during mowing operations there is a clearly noticeable increase in vibrations or change in sound produced by the mower, then stop operations immediately, locate the cause and eliminate it before continuing the work!

- Regularly check flails, flail brackets, bolts and flail mounting plates on the rotor shaft. For minimum dimensions required, see chapter 7.1!
- Ensure the rotor shaft is provided with all flails equally worn off!
- Damaged or worn flails, flail brackets and bolts must be replaced immediately!
- Immediately replace rotor shafts that are out of balance or rotor shafts with worn mounting plates!
- Regularly check the rubber protecting flaps of the cutting head, and replace them if showing too much wear.
  It is prohibited by law to work with this machine without protecting flaps/guards or if they are worn!!
- Only such persons are allowed to work with and/or on the machine as are perfectly familiar with it and well aware of possible dangers!

- Any and all work to be done on the mower is allowed to be carried out only with solid and proper tools!

Pictograms (see figure 2.1.):

1. Before putting the machine into service, read the user's manual and safety instructions and observe them. (Votex no. 20.10.604)

2. Direction of rotation and maximum speed of PTO shaft 540 rpm (Votex no. 20.10.600) for rear mounting.
   For 1000 rpm (Votex no. 20.10.602)

3. Do not touch any rotating parts before the machine has come to standstill. (Votex no. 20.10.605)!

4. Keep your distance from a rotating rotor shaft. (Votex no. 20.10.606)!

5. Never come within the link-motion range of moving parts. (Votex no. 20.10.608)!

6. Before carrying out any maintenance and repairs, shut down the engine and remove the ignition key (Votex no. 20.10.609)!

7. Lift the machine only at the lifting lug. (Votex no. 20.10.610)

8. When operating the lifting device, stay outside the lifting range of the three-point linkage. (Votex no. 20.10.611)!

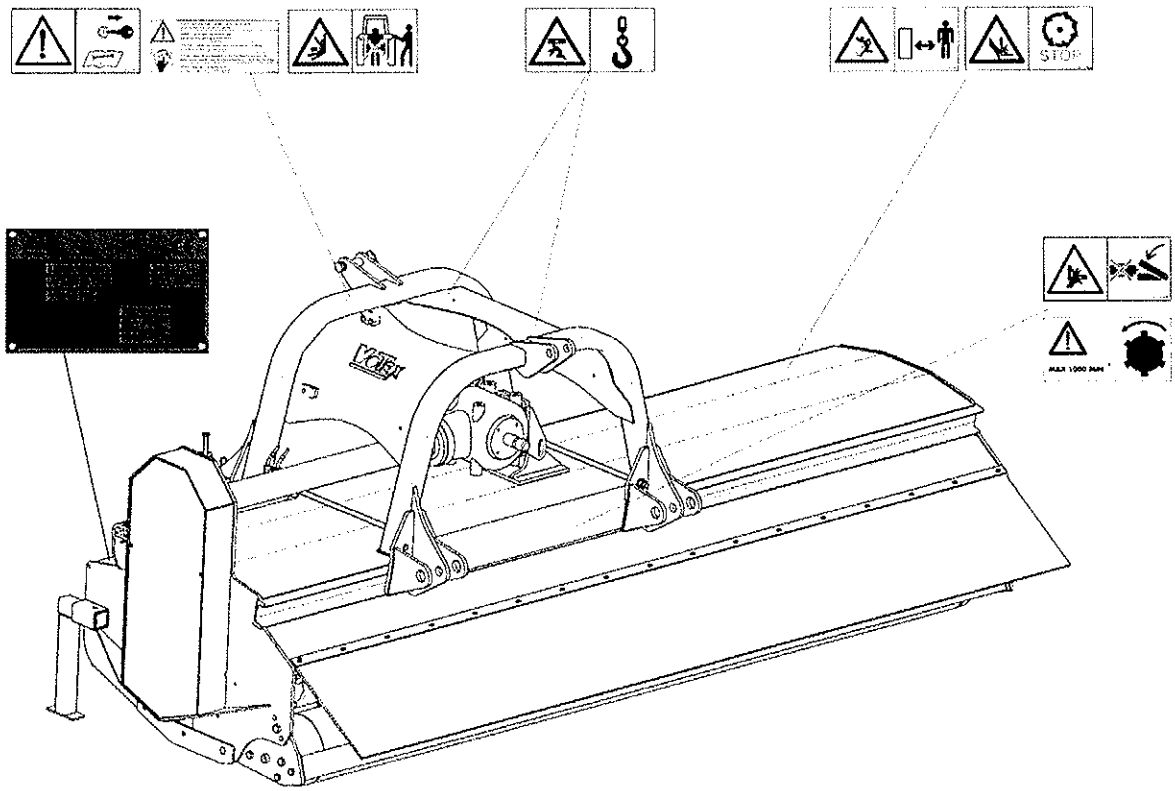
2.3. Identification plate.

The identification plate is provided on the top frame beam, see picture 2.1.

The plate contains the following data:

- Brand name : VOTEX
- Name and address of manufacturer : Votex B.V.
  Groen 2
  6666 LP HETEREN
  The Netherlands
- CE marking : CE
- Model : Roadmaster 07
- Type : 1907 or 2307
- Serial number :
- Year of construction :
- Mass :
- Nominal output :
- Max. hydraulic operating pressure :
- Maximum rpm of cutting rotor :

Figure 2.1 : Pictograms and identification plate on the machine



3. Technical specifications

Type of Roadmaster 07	1907	2307
Working width cm	181	217
Transport width cm	218	254
Cutting height adjustment cm	2.5 - 7.5	2.5 - 7.5
Mass kg (standard version)	723	769
Mounting category	II or III	II or III
Mounting	Front/pulled	Front/pulled
Nominal power	40 kW	50 kW
Max. side shift (relative to tractor centre) cm	143	179
PTO shaft speed	540/1000 rpm	540/1000 rpm
Max. Rotor shaft speed	2000 rpm	2000 rpm
Number of flails	60	72

For all types, the sound pressure produced at normal operating speed amounts to 94 dB(A), measured at a height of 1.60 m and at a distance of 1 m from the mower.

4. Transport and storage of the mower.

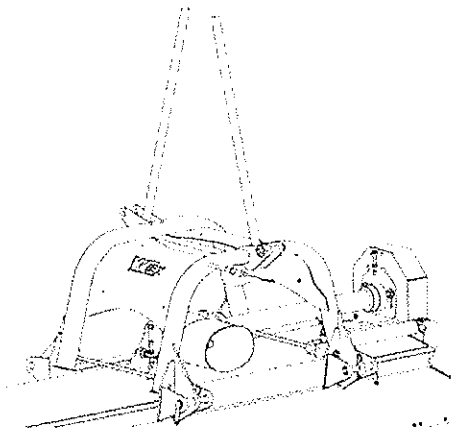
The mower may be transported only with the rotor shaft standing still. The mower (when not coupled to a tractor) may be moved only when the following conditions have been met:
- supporting leg in lower position and locked,
- PTO shaft, if mounted, in the bracket provided for this purpose on the three-point linkage.

When not coupled to a tractor, the mower can only be moved by lifting it, for which a sling is laid under the three-point bracket. Make sure that the sling runs between the plates of the top-bar mounting so that it cannot move. (see figure 4.1) Before lifting the machine, always put it into the narrowest position with the side-shift cylinder. For the lifting operation, use a lifting gear and slings having a lifting capacity exceeding or equal to the mass of the mower. For this, see the identification plate on the machine.

Attention!

Place the mower on horizontal solid ground with a minimum strength of 400 kPa (approx. 4 kg / cm²).

Figure 4.1
Lifting lugs



When the mower is to be stored, it is advisable to slide the side-shift cylinder (if provided) fully inwards in view of the risk of damage or corrosion. If this is not possible, the cylinder rod must be lubricated with acid-free vaseline in view of the risk of corrosion.

For winter storage, we refer to chapter 7.9.

5. Putting the mower into operation.

Prior to coupling the mower, check whether the data on direction and speed of rotation as stated on the machine correspond to the direction and speed of rotation of the tractor PTO shaft (see figure 5.1).

Figure 5.1
Speed and direction of rotation of PTO shaft

5.1. Coupling the mower to the tractor.

The Votex Roadmaster 07 flail mower can be mounted to tractors using a cat. II or III linkage mechanism

To couple the mower to the tractor, proceed as follows:

- place the tractor in front of the mower so that the drawbars can be coupled to the machine,
- pull the parking brake of the tractor and put the gear lever(s) into neutral.

Danger! When operating the linkage mechanism, stay outside the lifting range of the three-point linkage

- fix both drawbars to the mower using the lifting-arm pins and fit the spring clips,
- turn off the tractor engine and remove the ignition key,
- mount the PTO shaft and both chains of the guard,
- mount the top bar and top-bar pin(s), and secure it (them),
- adjust the machine position horizontally by turning the top bar,
- reduce the lateral play of the mower in the three-point linkage to a minimum.

5.2. Connecting to tractor hydraulic system.

Before connecting the hydraulic hoses, turn off the tractor engine, remove the ignition key, and depressurize the tractor hydraulic system! The hydraulic hoses of the Votex Roadmaster 07 are provided with 1/2" BSP (male) connectors. The female connectors should be on the tractor. A double-acting control valve is required for the lateral movement of the cutting head. Any costs to be incurred for adapting the tractor hydraulic system will be for account of the user. After disconnecting the hydraulic hoses, the dust caps included in the delivery must be fitted on the quick connectors so as to prevent sand and dirt from getting into the tractor hydraulic system. Damage to the tractor hydraulic system cannot be charged to the manufacturer. Normal use of the Votex Roadmaster 07 will not lead to the tractor hydraulic system being loaded heavily.

5.3. Mounting the PTO shaft.

Before mounting the PTO shaft, turn off the tractor engine and remove the ignition key! Use the PTO shaft of the Votex Roadmaster 07 flail mower in accordance with the manufacturer's instructions. Make sure that the PTO shaft connections are properly secured to tractor and mower. Only use a complete PTO shaft guard provided with securing chains. They must be fastened to the tractor and mower in such a way that the guard cannot turn with the shaft.
Take into account all angles that the PTO shaft may conceivably form. In addition, both the tractor and the machine must be provided at the shaft ends with solid guards overlapping the PTO shaft guard by at least 50 mm.


Attention!

The PTO shaft must not be too long. To determine the proper shaft length, the upward movements and swinging of the machine and the turning inwards and outwards of the top bar must be taken into account. For mounting, shortening and maintenance, see the user's manual of the PTO shaft!

6. Working with the mower.


Attention!

After the initial 8 running hours, retighten all bolt connections (bolt-connection tightening moment for flail mounting: 80 Nm)!

6.1 PTO shaft speed.


Attention!

The PTO shaft speed indicated on the machine must never be exceeded!

The PTO shaft speed indicated on the machine corresponds to a rotor shaft speed of approx. 2000 rpm, which ensures the best cutting action.

6.2. Adjusting the cutting height.

The cutting height of the Votex Roadmaster 07 flail mower can be adjusted by shifting the ground-roller supports in relation to the cutting head.

6.3 Vibrations in the machine.

When during mowing operations there is a clearly noticeable increase in vibrations or change in sound produced by the mower, then stop operations immediately, locate the cause and eliminate it (see 7.1.)!

6.4 Uncoupling the mower.


Attention!

Place the mower on horizontal solid ground with a minimum strength of 400 kPa (approx. 4 kg/cm²)

Danger! Be alert to residual pressure when uncoupling hydraulic hoses!

- pull the parking brake of the tractor and put the gear lever(s) into neutral,
- put the side-shift cylinder (if provided) into the shortest position (for storage including winter storage preferably in the shortest position),
- put the supporting leg into the lower position and lock it in place,
- lower the machine to the ground,
- shut down the tractor engine and remove the ignition key,
- then depressurize the hydraulic system by moving the levers on the tractor for operating the lifting cylinder and sliding cylinder a few times back and forth,
- disconnect the hydraulic hoses and fit the dust caps,
- remove the PTO shaft on the tractor side and place it into the bracket provided for this purpose,
- remove the top-bar and lifting-arm pins,
- removing the lighting plug if mounted.

7. Machine maintenance.

Inspection and maintenance may be carried out only when:

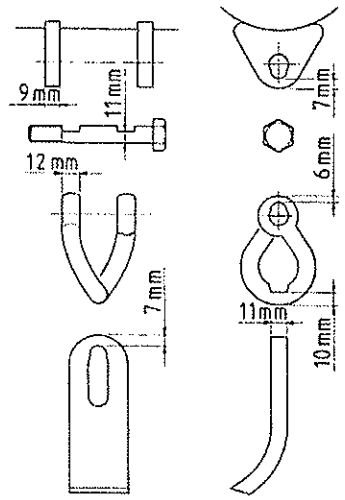
- The tractor PTO shaft has been switched off
- The lifting device of the tractor is in its lowest position
- The tractor engine has been shut down
- The ignition key has been removed
- The hydraulic system has been depressurized

7.1. Flails, bolts, flail mountings and wearing plates.

Flails, bolts and mounting plates on the rotor shaft must be checked regularly for wear.

Danger! Never work with flails, bolts and mounting plates that do not meet the minimum-dimension requirements! For this, see figure 7.1.1. Immediately replace any parts that do not have the minimum dimensions required!

Figure 7.1.1
Minimum dimensions
of flail mountings



Flail mounting nut tightening moment: 80 Nm

Worn flails result in poor cutting quality that looks bad. When this happens, replace all flails and, if necessary, all bolts. Replacing only the flails that are most worn would render the rotor shaft out of balance, resulting in vibrations which may cause serious damage to your mower in a very short time. Vibrations may point to one or more (heavily) damaged flails. Also, objects wound around the rotor shaft (e.g. barbed wire) may cause vibrations. In the event of vibrations and/or changes in the mower sound, switch off the PTO shaft immediately, then locate and eliminate the cause!

TIP Excessive wear of flails, bolts and mounting plates on the rotor shaft may be caused by too low a rotor shaft speed and/or frequent contact of the flails with soil or water.

If one or more flails have been (heavily) damaged, replace them with specimens that are worn to the same degree as the other flails mounted.
If, after taking the above measures, there are still vibrations in the machine, this may point to a bent rotor shaft.
In this case contact your dealer. Never try to repair a rotor shaft yourself!
Regularly check the condition of the wearing plates under the cutting head.
Replace them if there appears to be a risk of wearing the underlying material.

7.2. Protection.

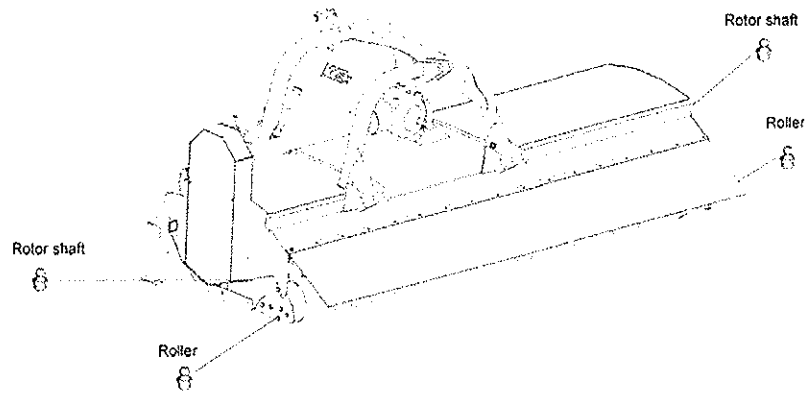
Regularly check the condition of safeguards. Replace any damaged or worn rubber flaps immediately!
It is prohibited by law to operate this machine without protecting flaps/guards or if they are worn!!

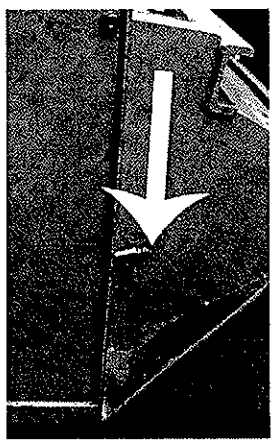
7.3. Greasing points.

Figure 7.3.1. shows the greasing points to be lubricated daily with a multipurpose lithium grease
Greasing points:
A End bearing of rotor shaft (2 nipples)
B Ball bearings of ground roller (2 nipples)

The PTO shaft must be lubricated according to the lubrication schedule of the manufacturer.

Figure 7.3.1
Greasing points.





Rotor shaft greasing point on driving side

7.4. Hydraulic system.

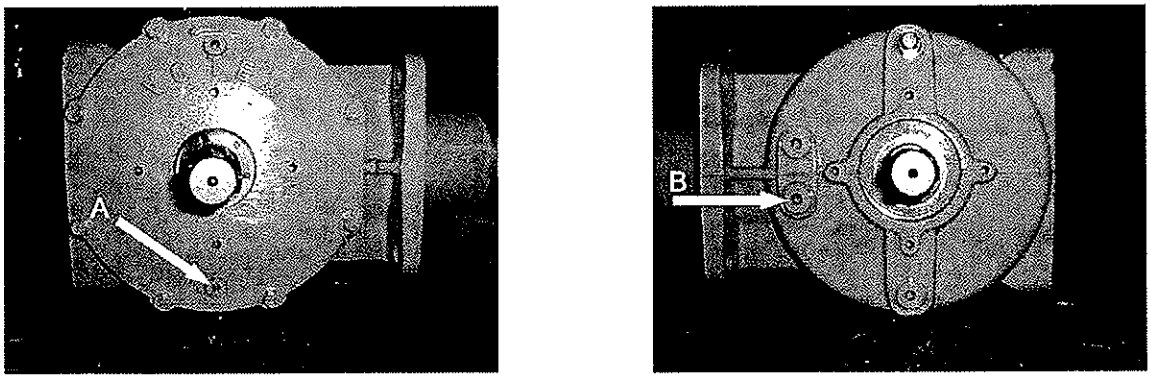
The hydraulic oil in hoses and cylinder is changed automatically when changing the hydraulic oil of the tractor. It is therefore important to follow the pertinent instructions of the tractor manufacturer.

7.5. Gearbox.

The oil content required for the gearbox is 1.9 l of Gear Oil SAE 90 API GL4. The gearbox oil is to be changed for the first time after 20 running hours and subsequently once in a season. In addition, it is necessary to check the gearbox regularly for any leaks.

Changing the oil: (see figure 7.5.1)
- clean the gearbox around the drain and filler plugs,
- loosen the plug (A) on the underside of the gearbox and collect the oil
- place the plug back,
- remove the lower plug (B) on the side of the box, (level plug)
- fill the box through this hole with 1.9 l of oil,
- the oil should then reach the level of the level plug,
- place both plugs back.

Figure 7.5.1
Checking the oil level



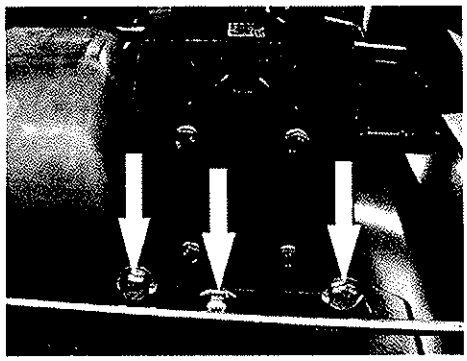
7.6. V-belt transmission.

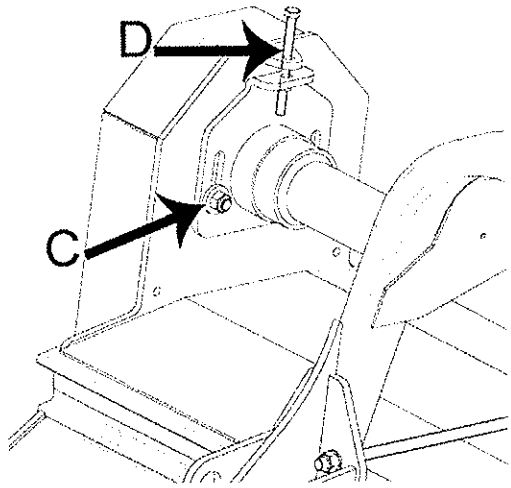
7.6.a Removing and mounting the V-belt guard and V-belts
(See figures 7.6.a.1 ; 7.6.b.1 and 7.6.b.2)

- loosen the fixing bolts of the V-belt guard,
- remove the V-belt guard,
- slightly loosen the 3 bolts (A) by which the gearbox is fixed to the cutting head,
- slightly loosen the 2 bolts (C) by which the drive housing is fixed to the side plate,
- loosen the lock nut of the V-belt tensioning bolt (D),
- loosen the V-belt tensioning bolt (D) to the extent that you can remove the V-belts,
- mounting is done in reserve order of removal.

Figure 7.6.a.1
Tensioning the V-belts

A



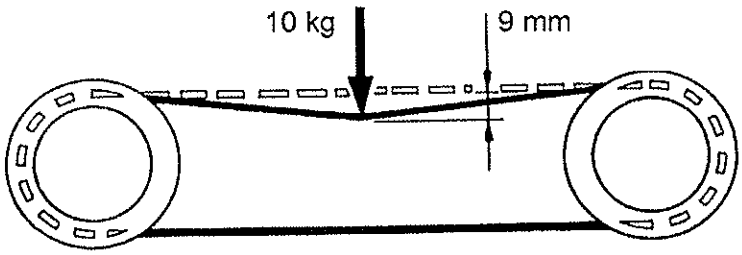


- before tightening the bolts of the gearbox, make sure that the V-belt pulleys are properly aligned. Check this by placing a ruler along the two V-belt pulleys. If the alignment is not correct, it must be corrected by adjusting the gearbox height. (see figure 7.6.a.1)

7.6.b. Tensioning the V-belts.

Checking V-belt tension:
- loosen the fixing bolts of the V-belt guard,
- remove the V-belt guard,
- exert a force of 10 kg upon one of the belts, using for instance a spring balance. The depression is then not to exceed 9 mm. (see figure 7.6.b.1),
- tension the belt, if necessary.

Figure 7.6.b.1
Checking V-belt tension



Tensioning the V-belts (see figures 7.6.a.1 ; 7.6.b.1 and 7.6.b.2)

- slightly loosen the 3 bolts (A) by which the gearbox is fixed to the cutting head,
- slightly loosen the 2 bolts (D) by which the drive housing is fixed to the side plate,
- loosen the lock nut of the V-belt tensioning bolt (D),
- turn the V-belt tensioning bolt (D) until the belts have reached the correct tension, and secure the bolt again,
- before tightening the bolts of the gearbox, make sure that the V-belt pulleys are properly aligned. Check this by placing a ruler along the two V-belt pulleys, (see figure 7.6.b.2)
- retighten the bolts of the gearbox and the drive housing,
- mount the V-belt guard.

NB.: First-time tensioning must be carried out after operating the mower for about 15 minutes. The tension and condition of the V-belts are subsequently to be checked at regular intervals.

7.7 Rotor shaft.

The operations described below are allowed to be performed only by the manufacturer or dealer!

7.7.a Removing the rotor shaft.

The rotor shaft may only be removed using a tackle having a lifting capacity of at least 300 kg!

- drain the oil from the gearbox or replace the bleed nipple with a blind plug,
- position the mower on its back,
- remove the cap of the rotor-shaft end bearing by loosening the four M16 nuts, (note the O-ring on the inside)
- tap back the locking lip of the locking ring that secures the check nut on the adapter sleeve,
- turn the check nut half a centimetre forward,
- place the pipe on the nut and strike it to force the adapter sleeve back. Remove the nut and locking ring,
- the bearing housing with bearing thus loosened can now be removed,
- remove the bearing plate (including the distance bush) from the cutting head by loosening the four M10 nuts,
- also remove the shims from the rotor shaft,
- fasten a tackle having a lifting capacity of at least 300 kg to a flail bracket in the middle of the shaft,
- remove the 6 bolts of the flange joint on the driving side,
- lift the shaft a little and push it a little through the hole in the side plate,
- if the shaft resists moving, carefully tap on it with a plastic hammer to loosen it,
- lift the shaft out of the machine.

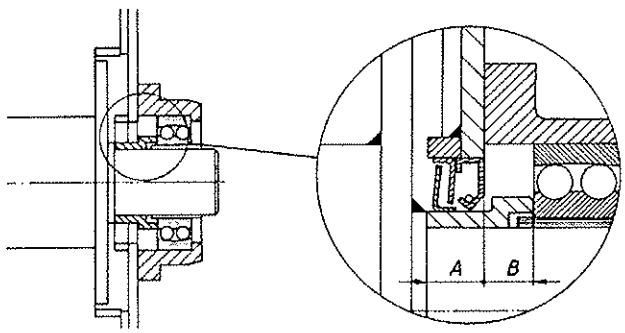
7.7.b Mounting the rotor shaft.

The rotor shaft may only be mounted using a tackle having a lifting capacity of at least 300 kg!

- always fit new sealing rings and labyrinth seals,
- fasten the tackle to a flail bracket in the middle of the rotor shaft,
- lift the rotor shaft and insert the shaft end into the hole in the side plate of the cutting head,
- fix the flange joint with the 6 bolts,
- then fix the bearing on the other side,
- measure the distance from the rotor-shaft collar against which the shims are placed and the top of the cutting head casing,
- to this, add 24 mm, (thickness of bearing block+ bearing plate)
- from this total, deduct 34 mm, (height of distance bush)
- the remaining difference in measure must now be filled up with shims against the collar of the rotor shaft, (See figure 7.7.1)

- fix the bearing plate with a new labyrinth seal and a new sealing ring jointly with the distance ring against the shims,
- using a centre punch, make 4 holes on the edge of the distance ring so that the labyrinth seal cannot move up,
- then put the adapter sleeve with bearing and bearing housing without the cap in place, and fix them provisionally,
- fit the ring nut onto the adapter sleeve without the locking ring and tighten it until you clearly feel a metal-to-metal contact between the ring nut and the bearing. Then rotate the ring nut a quarter turn to stress the adapter sleeve,
- remove the ring nut and place the locking ring,
- tighten the ring nut without further stressing the adapter sleeve and secure the nut!
- after completing the mounting with the necessary shims and grease in the bearing, the rotor shaft should still be able to rotate smoothly and without any radial play,
- now lubricate the end bearing (at the lubricating nipple provided in the bearing cap),
- then retighten the nut of the bearing on the other side and secure the nut,
- fit the distance ring (note: bevelled side towards the cutting head) and the key,
- fit a new sealing ring and then the V-belt pulley with the clamping bush.

Figure 7.7.1
Adjusting play of rotor-shaft end bearing



7.8. Winter storage.

In the event the machine is put out of service for an extended period of time, it will be necessary to perform an intensive cleaning. Thereupon, lubricate all greasing points (see chapter 7.3) and change the gearbox oil (see chapter 7.5). After this, have the machine run for a few minutes. Ensure that the cylinder is in its slid-in position.

8. Scrapping the mower.

When the machine is to be scrapped, you must take the following measures:
- place a drain pan under the gearbox and drain the oil,
- remove all hydraulic components and collect the oil,
  slide the cylinder a few times in and out, and collect the residual oil,
- remove grease from:
- bearing housings including bearings,
- ground-roller bearings.

Remove all rubber and synthetic parts and dispose of them in accordance with the regulations in force. Dispose of the grease and oil in accordance with the regulations in force. Dispose of the remaining parts as scrap iron.

Appendix.

Ordering parts.
Liability and warranty.
Notes.
Conversion table.
Tightening moments.

A. Ordering parts.

Your order for parts should contain the following details (see identification plate):
- Model
- Type
- Serial number
- Part number, part name and quantity

For any part whose number cannot be determined with certainty, you may send the original in order to avoid delivery of a wrong part. The parts of the figures in this parts book may show differences with the original because due to design adaptations or improvements a particular part may have been changed prior to the release of a new edition of this book. It is therefore advisable not to rely only on the illustrations. Use original Votex parts only so that you will be assured of excellent quality and a good fit.

B. Liability and warranty.

Votex B.V. guarantees the proper operation of your machine for a period of 12 months after delivery, provided the instructions contained in this manual are followed as described.
- The machine shall be used only by persons who have thoroughly studied this manual beforehand, and are well aware of the dangers that may result from not properly following the pertinent instructions. This also applies to the persons responsible for adjusting and servicing the machine.
- The machine shall be used only for the specified purposes.
- Always duly observe the safety instructions.
- Replacement parts will be compensated within the period of guarantee only if they have been ordered from Votex B.V.
- Use only original Votex parts/components and the specified lubricants.
- Always duly observe the local safety regulations as in force with regard to the prevention of accidents, transport safety and traffic regulations.
- **Important!**

This manual applies to the original Votex technical design and construction of your machine. Votex B.V. can therefore not be held responsible and disclaims any liability for any damage resulting from any technical alteration or change independently made to the machine and from the use of any parts other than those from Votex B.V. This provision also applies to the use of any other lubricants, improper or insufficient maintenance and any repairs carried out improperly, without prior consultation with Votex B.V.
- **Please note that:**

In case this manual is **not** correctly complied with, Votex B.V. cannot be held liable for any warranty claims within the period of guarantee.

The terms of delivery and payment used by Votex B.V. are the terms and conditions of the Metaalunie. These have been lodged with the Registry of the Court of Rotterdam.
They include the Algemene Handelsvoorwaarden Landbouwwerktuigen en -uitrustingen (AHL) (general terms of business for agricultural machinery and equipment).
If the guarantee card and user declaration have not been correctly and completely filled in and returned to Votex B.V. within 14 days after delivery, warranty requests, if any, will not be considered.

C. Notes.

D. Conversion table.

Length
1 m = 100 cm = 1000 mm

Volume
1 m3 = 1000 dm3 = 1000 l

Force and weight
1 N = 0.102 kg (f) = 0.102 kp

Pressure and stress
1 bar = 0.987 atm = 100 kPa = 100 kN/m

Tightening moment
1 Nm = 0.102 kg (f) m

Power
1 kW = 1000 W = 1.36 pk = 1.36 cv = 1.34 hp

Number of revolutions
1 omw./min = 1 rpm = 1 U/min = 1 tr/mn = 1 min-1

Speed
1 km/h = 0.278 m/s

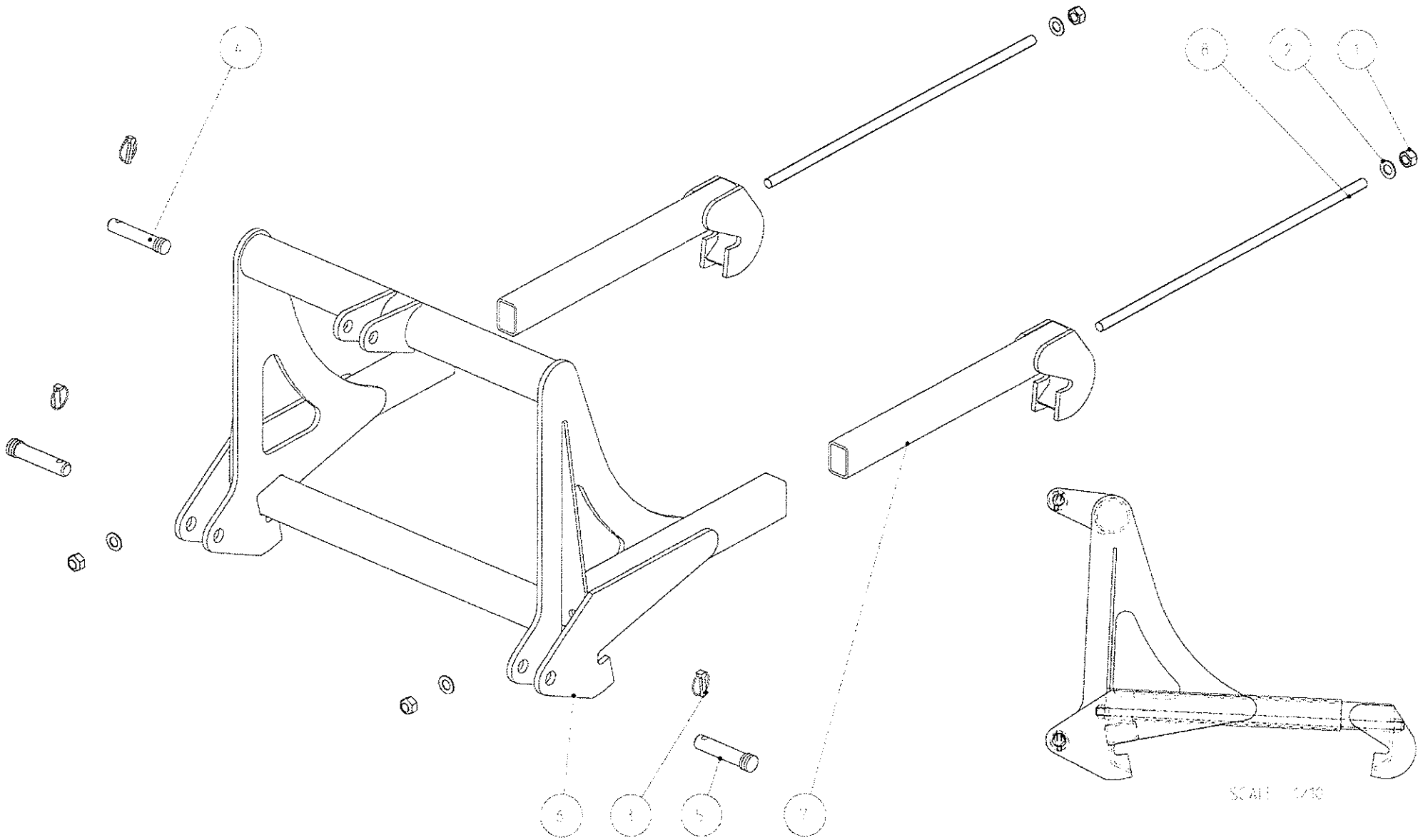
E. Tightening moments.

All bolt connections must be tightened according to the table below, unless otherwise stated in the manual or parts list.

Thread	Tightening moment (Nm)
M 8	24
M 10	49
M 12	84
M 14	133
M 16	205
M 18	290
M 20	410

Votex Driepuntsframe 3-points linkage Attelage 3-points Dreipunktaufhängung

Roadmaster 07

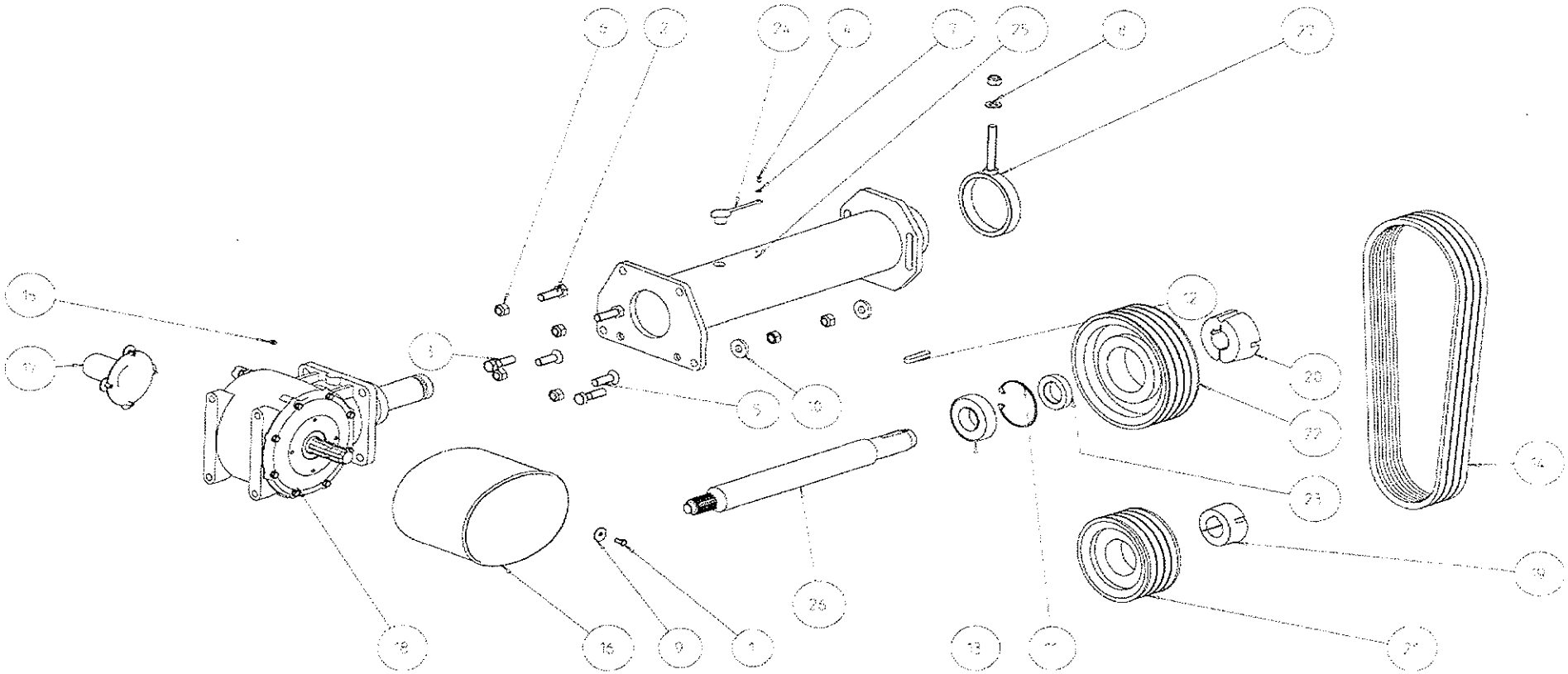


Votex Roadmaster 07

			Driepuntsframe	Three points linkage	Attelage trois points	Dreipunkt aufhängung	Technische info
No	Onderdeel nummer	Aantal	Omschrijving	Description	Designation	Beschreibung	
1	11.05.020	4	Borgmoer	Lock nut	Écrou autofreiné	Sicherungsmutter	M20
2	12.11.020	4	Sluitring	Washer	Rondelle	Unterlegscheibe	M20
3	20.01.008	3	Borgclip	Linch pin	Goupille clips	Klappstecker	11mm
4	20.01.132	1	Topstangpen	Top link pin	Broche troisieme point	Bolzen	
5	20.01.133	2	Werktuigpen	Link pin	Broche	Lenker bolzen	
6	45.07.836	1	Driepuntsframe	Three points linkage	Attelage trois points	Dreipunkt Aufhängung	LM+RM07
7	45.07.840	2	Framebuis	Frame tube	Tube de Châssis	Ramen rohr	
8	45.07.843	2	Draadeind	Threaded rod	Tige filetée	Gewindestange	M20

Votex Aandrijving Drive Transmission Antrieb

Roadmaster 07

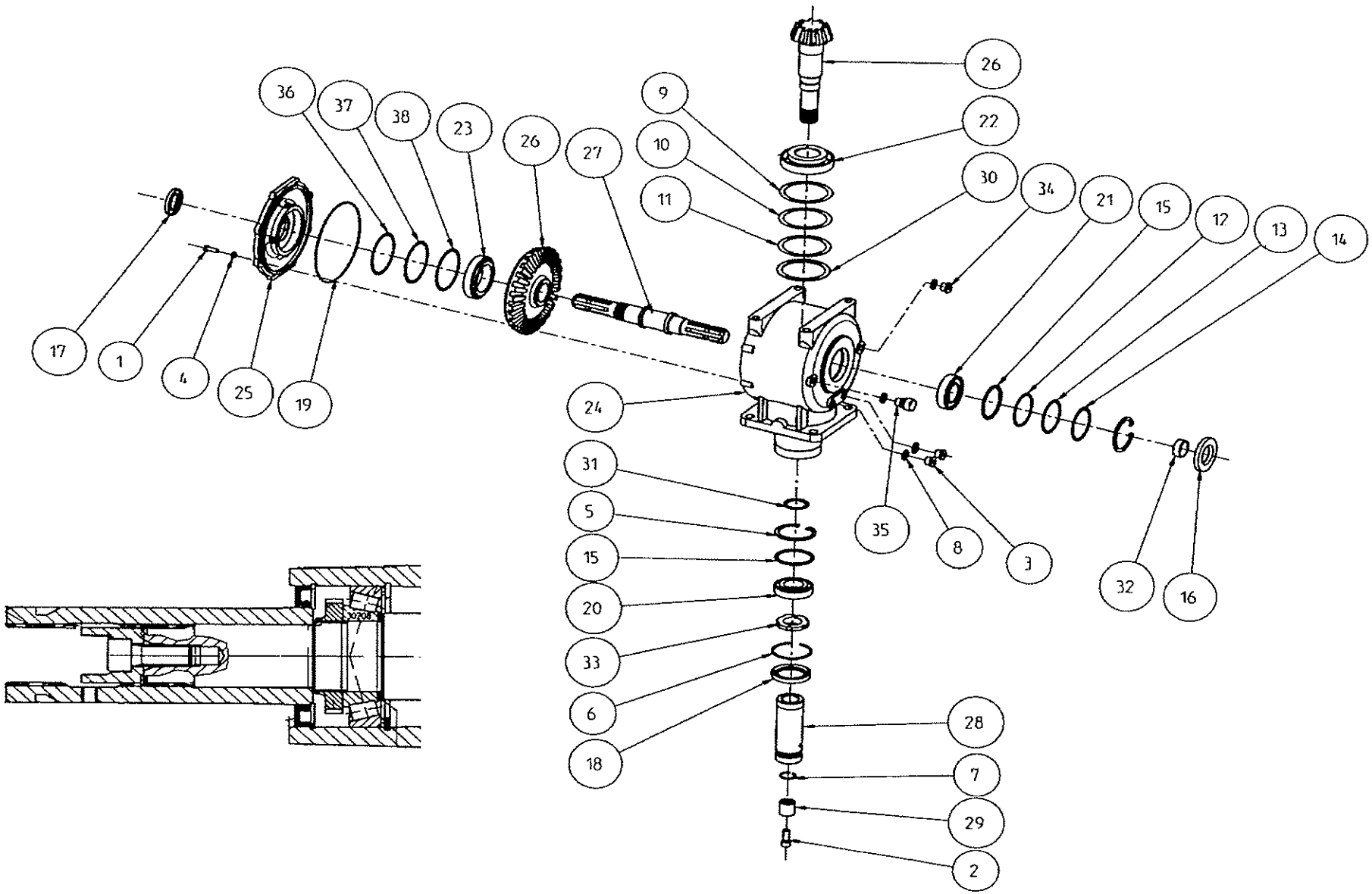


Votex Roadmaster 07

Aandrijving — Drive — Transmission — Antrieb

nr.	onderdeel nummer	aantal 1907	2307	2307 verlengd	Omschrijving	Discription	Designation	Beschreibung	technische info
1	10.02.087	8	8	8	Zeskanttapbout	Bolt	Vis	Sechskantschraube	M8x16-8.8
2	10.02.208	2	2	2	Zeskanttapbout	Bolt	Vis	Sechskantschraube	M16x50-8.8
3	10.04.209	2	2	2	Zeskantbout	Bolt	Vis	Sechskantschraube	M16x55-8.8
4	10.13.038	1	1	1	Cilinderkopschroef	Cilinderheadscrew	Vis à tête cilindrique	Zylinderkopfschraube	M5x12
5	10.29.208	2	2	2	Verzonken schroef	Socket screw	Vis á tête fraisée	Senkschraube	M16x50
6	11.05.016	9	9	9	Borgmoer	Lock nut	Écrou autofreiné	Sicherungsmutter	M16
7	12.11.005	1	1	1	Sluitring	Washer	Rondelle	Unterlegscheibe	M5
8	12.11.016	1	1	1	Sluitring	Washer	Rondelle	Unterlegscheibe	M16
9	12.15.008	8	8	8	Carrosseriering	Mudwingwasher	Rondelle de carrosserie	Kotflügelscheibe	M8x30x1.5
10	12.15.516	4	4	4	Sluitring	Washer	Rondelle	Unterlegscheibe	17x40x6
11	12.31.100	1	1	1	Zekeringsring	Circlip	Circlip	Sicherungsringe	100x3
12	15.09.063	1	1	1	Inlegspie	Sunk key	Clavette	Paßfeder	14x9x63-
13	18.05.019	1	1	1	Kogellager	Ball bearing	Roulement à billes	Kugellager	6309-2RS1/C3
14	19.08.005	2	2	2	Powerband	Powerbelt	Courroie "power belt"	Kraftband	XPB 1550-2
15	20.03.003	1	1	1	Smeernippel	Grease nipple	Graisseur	Schmiernippel	M8x1.25-180°
16	27.10.149	1	1	1	Afscherming	PTO shaft guard	Protection transmission	GelenkwelleSchutz	P82.25
17	27.10.181	1	1	1	Afscherming	PTO shaft guard	Protection transmission	GelenkwelleSchutz	
18	28.01.124	1	1	1	Tandwielkast	Gearbox	Boîtier à renvoie d'angle	Getriebe	1:2,7
19	36.06.005	1	1	1	Taperlock klembus	Taperlock bush	Moyeu conique	Spanbüchse	2517-45 mm
20	36.06.008	1	1	1	Taperlock klembus	Taperlock bush	Moyeu conique	Spanbüchse	3020-45 TL
21	36.06.211	1	1	1	V-snaarschijf	V-belt pulley	Poulie à gorges	Keilriemenscheibe	180SPB4
22	36.06.217	1	1	1	V-snaarschijf	V-belt pulley	Poulie à gorges	Keilriemenscheibe	250SPB4
23	45.09.350	1	1	1	Vulschijf	Disc	Disque	Scheibe	
24	45.09.400	1	1	1	Stofplug	Dust plug	Tampon de protection	Staubpfropfen	
25	45.09.577	1	1		Aandrijfhuis	Drive house	Cage d'entraînement	Antriebsgehäuse	RM 1907
	45.09.620			1	Aandrijfhuis	Drive house	Cage d'entraînement	Antriebsgehäuse	
26	45.09.581	1	1		Aandrijfas	Drive shaft	Arbre d'entraînement	Antriebswelle	L=596mm
	45.09.623			1	Aandrijfas	Drive shaft	Arbre d'entraînement	Antriebswelle	
27	45.09.653	1	1	1	Spanner	Tensioner	Tandeur	Spanner	

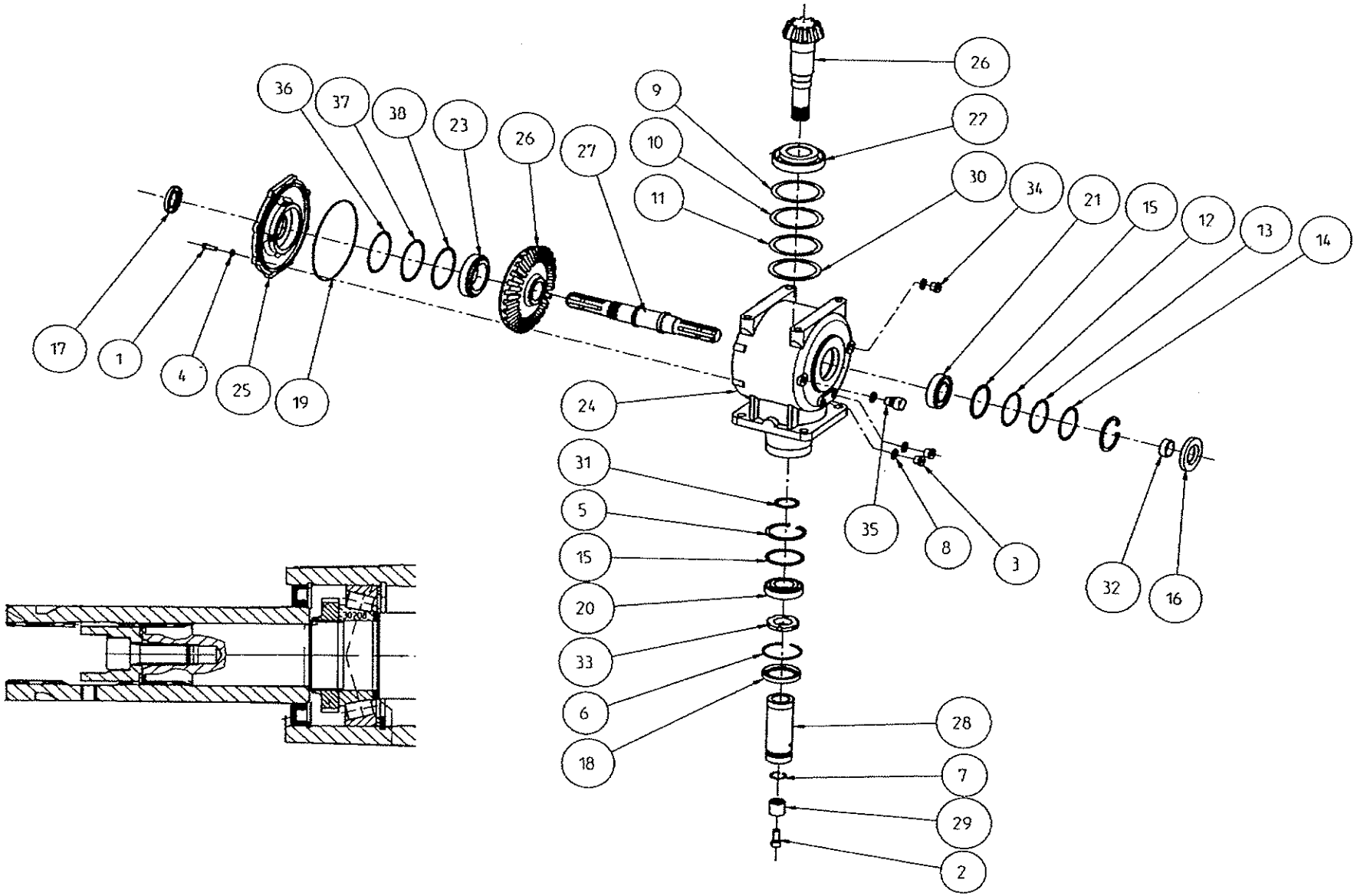
Votex Roadmaster Tandwielkast Gearbox Boitier à renvoie d' angle Getriebe



Votex Roadmaster 07

			Tandwielkast	Gearbox	Boîtier à renvoie d'angle	Getriebe	
nr.	onderdeel nummer	aantal	Omschrijving	Discription	Designation	Beschreibung	technische info
1-38	28.01.124	1	Tandwielkast	Gearbox	Boîtier à renvoie d'angle	Getriebe	1:2,7
1	10.02.091	8	Zeskanttapbout	Bolt	Vis	Sechskantschraube	M8x25-8.8
2	10.28.652	1	Cilinderkopschroef	Cilinderheadscrew	Vis à tête cilindrique	Zylinderkopfschraube	M12x3012,9
3	11.11.318	2	Kraagplug	Plug	Bouchon filetée	Verschlüßschraube	M18x1.5
4	12.01.008	8	Veerring	Spring washer	Rondelle grower	Federring	M8
5	12.31.080	2	Zekeringsring	Circlip	Circlip	Sicherungsringe	80x2.5
6	12.32.580	1	Zekeringsring	Circlip	Circlip	Sicherungsringe	G SB80
7	12.35.032	1	Zekeringsring	Circlip	Circlip	Sicherungsringe	
8	13.02.004	4	Koperring	Copper washer	Rondelle en cuivre	Kupferring	18x24x1.5
9	13.03.021	xx	Shim	Shim	Rondelle de réglage	Paßscheibe	90x110x0.1
10	13.03.022	xx	Shim	Shim	Rondelle de réglage	Paßscheibe	90x110x0.3
11	13.03.023	xx	Shim	Shim	Rondelle de réglage	Paßscheibe	90x110x0.5
12	13.03.031	xx	Shim	Shim	Rondelle de réglage	Paßscheibe	70x80x0.1
13	13.03.032	xx	Shim	Shim	Rondelle de réglage	Paßscheibe	70x80x0.3
14	13.03.033	xx	Shim	Shim	Rondelle de réglage	Paßscheibe	70x80x0.5
15	13.03.050	1	Steunring	Reinforcing ring	Rondelle de renfort	Stützscheibe	70x90x2
16	17.01.014	1	Keerring	Seal ring	Joint d'étanchéité	Simmerring	40x80x10
17	17.01.031	1	Keerring	Seal ring	Joint d'étanchéité	Simmerring	35x62x7
18	17.01.047	1	Keerring	Seal ring	Joint d'étanchéité	Simmerring	55x80x10
19	17.02.044	1	O-ring	O-ring	Joint torique	O-ring	194x2
20	18.11.010	1	Kegellager	Tapered rolling bearing	Roulement à rouleau conique	Kegellager	30208-J2
21	18.11.011	1	Kegellager	Tapered rolling bearing	Roulement à rouleau conique	Kegellager	32208-J2
22	18.11.017	1	Kegellager	Tapered rolling bearing	Roulement à rouleau conique	Kegellager	31310 J2/QCL7
23	18.11.024	1	Kegellager	Tapered rolling bearing	Roulement à rouleau conique	Kegellager	32013
24	28.02.220	1	Tandwielkasthuis	Gearbox case	Boîtier	Getriebegehäuse	
25	28.03.036	1	Tandwielkastdeksel	Gearbox cover	Couvercle	Getriebedeckel	

Votex Roadmaster Tandwielkast Gearbox Boitier à renvoie d' angle Getriebe

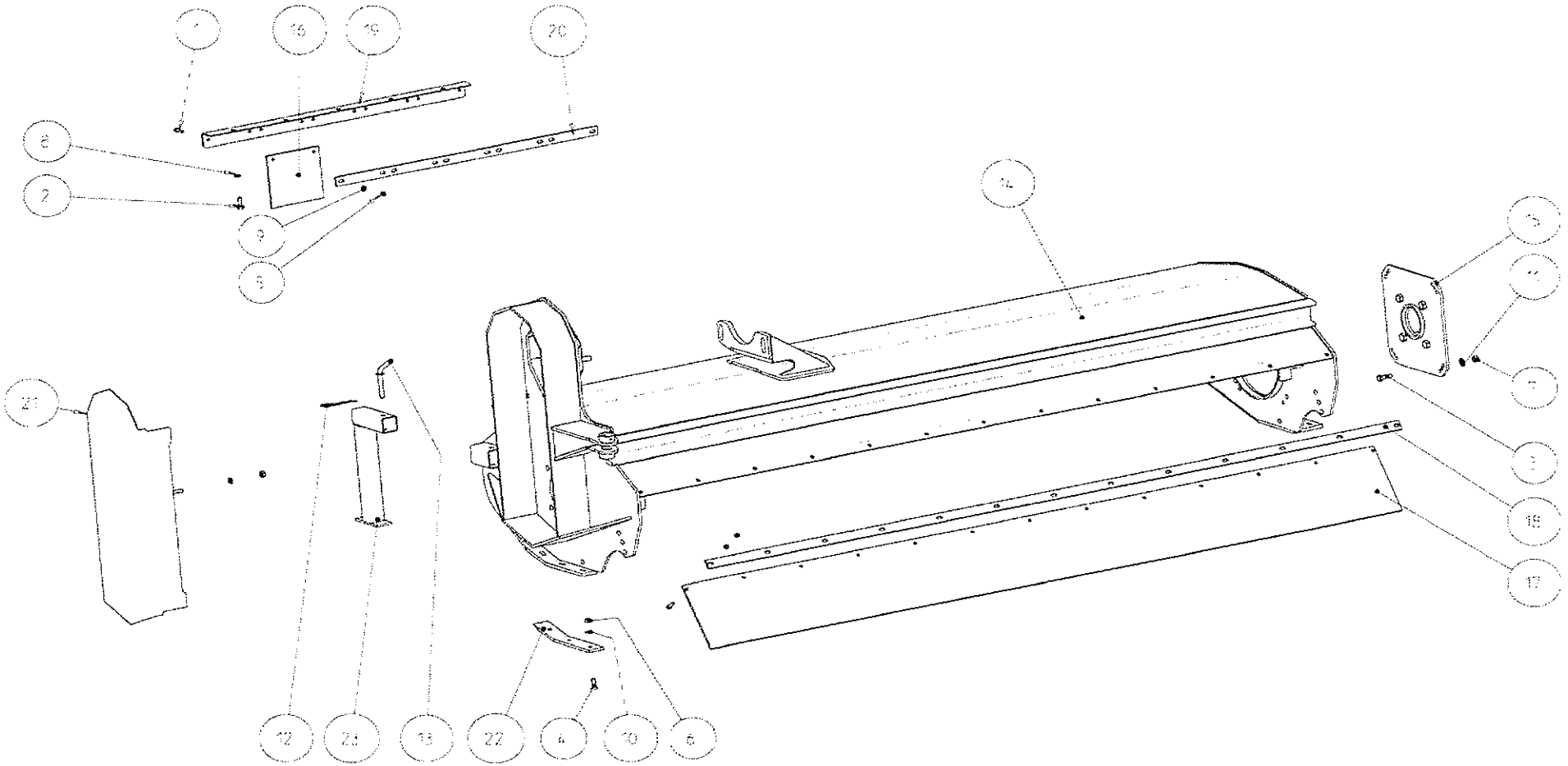


Votex Roadmaster 07

			Tandwielkast	Gearbox	Boîtier à renvoie d'angle	Getriebe	
nr.	onderdeel nummer	aantal	Omschrijving	Discription	Designation	Beschreibung	technische info
26	28.05.070	1	Pignonas+kegelwiel	Crownwheel+pignon	Jeu de pignons d'angle	Kegelradsatz	
27	28.06.030	1	Aandrijfas	Drive shaft	Arbre d'entraînement	Antriebachse	
28	28.06.108	1	Profielbus	Profile tube	Tube profilé	Profilbüchse	
29	28.06.109	1	Centreerbus	Centering bush	Tube de cenntrage	Zentrierbüchse	
30	28.07.041	1	Steunring	Reinforcing ring	Rondelle de support	Stützscheibe	
31	28.07.042	1	Afstandsring	Distance ring	Rondelle d'entretoise	Distanzring	
32	28.07.043	1	Loopring	Distance ring	Rondelle d'entretoise	Laufring	
33	28.08.040	1	Borgmoer	Lock nut	Écrou autofreiné	Sicherungsmutter	M40x1.5
34	28.08.053	1	Magneet aftapplug	Magnetic plug	Bouchon magnétique	Magnetpfropfen	M18x1.5
35	28.08.059	1	Ontluchtingsnippel	Air release nipple	Reniflard d'air	Entlüfter	
36	28.09.047	xx	Shim	Shim	Rondelle de réglage	Paßscheibe	90x100x0.1mm
37	28.09.048	xx	Shim	Shim	Rondelle de réglage	Paßscheibe	90x100x0.3mm
38	28.09.049	xx	Shim	Shim	Rondelle de réglage	Paßscheibe	90x100x0.5mm

Votex Maaigedeelte Cutting head Carter de broyge Mähergehäuse

Roadmaster 07

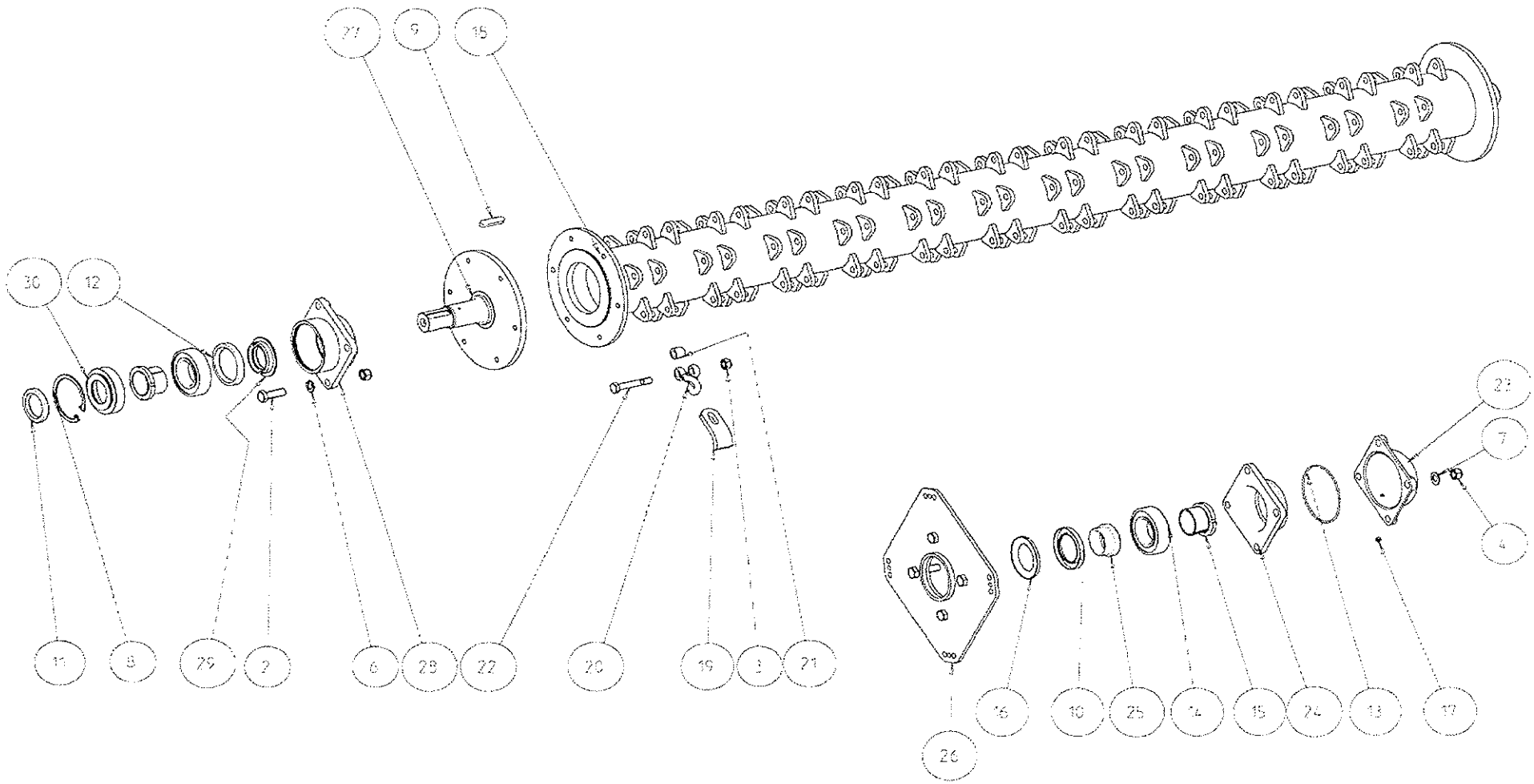


Votex Roadmaster 07

					Maaigedeelte	Cutting head	Carter de broyage	Mähergehäuse	
no.	onderdeel nummer	Aantal 1907	2307	2307 verlengd	Omschrijving	Discription	Designation	Beschreibung	technische info
1	10.02.092	33	33	33	Zeskanttapbout	Bolt	Vis	Sechskantschraube	M8x30-8.8
2	10.02.121	10	10	10	Zeskanttapbout	Bolt	Vis	Sechskantschraube	M10x30-8.8
3	10.02.153	8	8	8	Zeskanttapbout	Bolt	Vis	Sechskantschraube	M12x35-8.8
4	10.29.122	9	9	9	Verzonken schroef	Socket screw	Vis á tête fraisée	Senkschraube	M10x35
5	11.05.008	33	33	33	Borgmoer	Lock nut	Écrou autofreiné	Sicherungsmutter	M8
6	11.05.010	11	11	11	Borgmoer	Lock nut	Écrou autofreiné	Sicherungsmutter	M10
7	11.05.012	8	8	8	Borgmoer	Lock nut	Écrou autofreiné	Sicherungsmutter	M12
8	12.01.010	10	10	10	Veerring	Spring washer	Rondelle grower	Federring	M10
9	12.11.008	46	46	46	Sluitring	Washer	Rondelle	Unterlegscheibe	M8
10	12.11.010	11	11	11	Sluitring	Washer	Rondelle	Unterlegscheibe	M10
11	12.11.012	8	8	8	Sluitring	Washer	Rondelle	Unterlegscheibe	M12
12	20.01.004	1	1	1	Borgveer	Gripclip	Goupille beta	Federstecker	4mm
13	43.05.120	1	1	1	Vergrendelpen	Locking pin	Axe de veroullage	Bolzen	
14	45.01.863	1			Maaigedeelte	Cutting head	Carter de broyage	Mähergehäuse	RM1907
	45.01.866		1		Maaigedeelte	Cutting head	Carter de broyage	Mähergehäuse	RM 2307
	45.01.870			1	Maaigedeelte	Cutting head	Carter de broyage	Mähergehäuse	RM2307 verl
15	45.04.221	1	1	1	Lagerplaat	Bearingplate	Plaque de palier	Lagerplatte	
16	45.05.232	10	10	10	Rubberflap	Rubbersheet	Protection en caoutchouc	Gummistreifen	174x174x8mm
17	45.05.352	1			Rubberflap	Rubbersheet	Protection en caoutchouc	Gummistreifen	1960x230x9mm
	45.05.362		1	1	Rubberflap	Rubbersheet	Protection en caoutchouc	Gummistreifen	2320x230x9mm
	45.05.390	1			Klemstrip	Clamping strip	Barre de serrage	Klemmleiste	1900 ELVZ
18	45.05.400		1	1	Klemstrip	Clamping strip	Barre de serrage	Klemmleiste	2300 ELVZ
19	45.05.933	2	2	2	Hoeklijn	Support	Support	Stütze	A=878mm
20	45.05.936	2	2	2	Klemstrip	Clamping strip	Barre de serrage	Klemmleiste	B=878mm
21	45.10.626	1	1	1	V-snaar afschermkap	V-belt guard	Protection de courroie	KeilriemenSchutzblech	RM 07
22	45.11.480	3	3	3	Slijtplaat	Wearing plate	Tôle d'usure	Sohle	
23	45.11.526	1	1	1	Steunpoot	Parking leg	Béquille	Stütze	Landmaster

Votex
Roadmaster 07

Rotoras Rotorshaft Rotor Rotorwelle

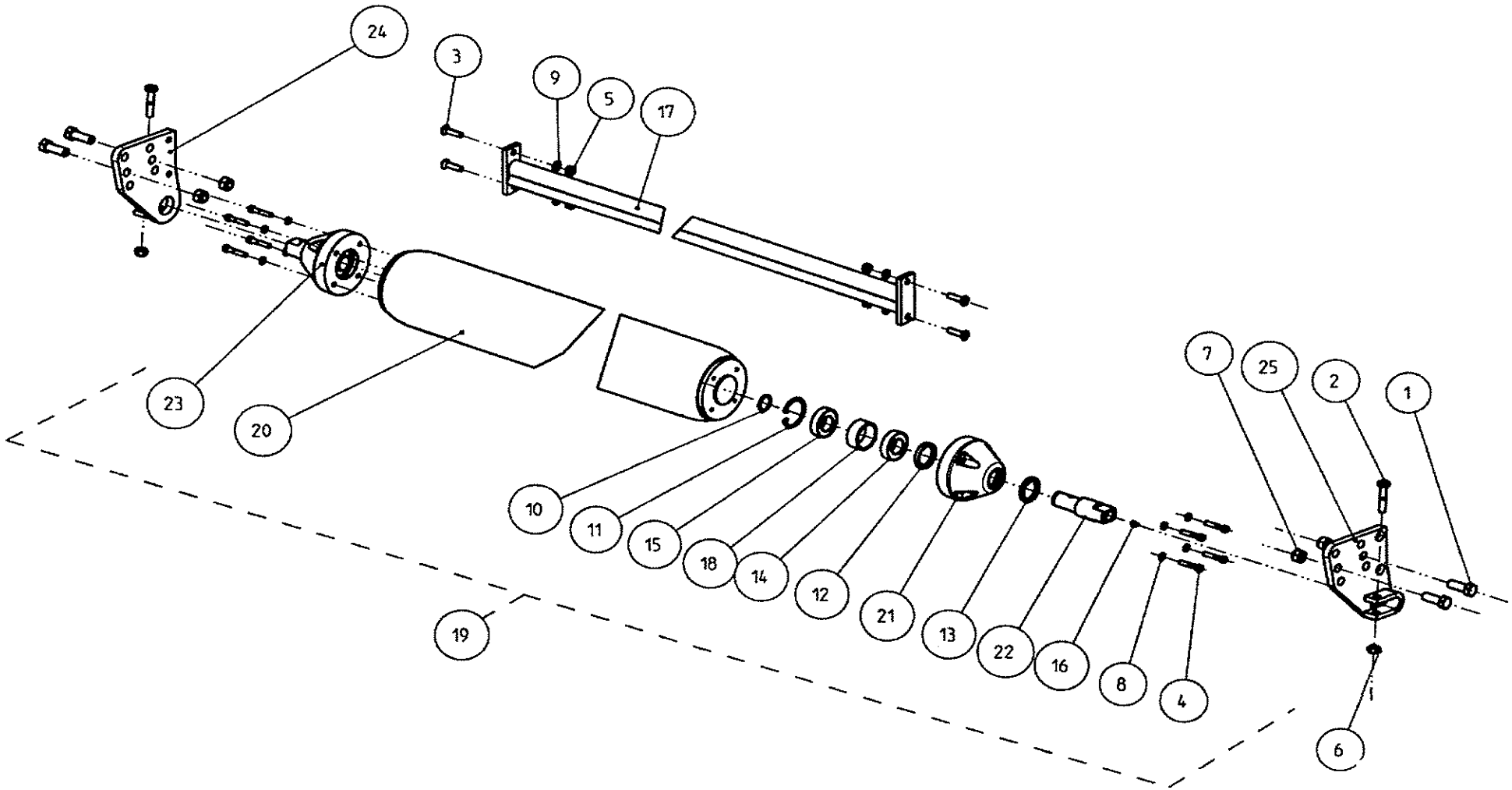


Votex Roadmaster 07

				Rotoras	Rotor shaft	Rotor	Messerwelle	
no.	onderdeel nummer	Aantal 1907	Aantal 2307	Omschrijving	Discription	Designation	Beschreibung	technische info
1	10.02.084	1	1	Zeskanttapbout	Bolt	Vis	Sechskantschraube	M8x10-8.8
2	10.02.208	4	4	Zeskanttapbout	Bolt	Vis	Sechskantschraube	M16x50-8.8
3	11.05.014	60	72	Borgmoer	Lock nut	Écrou autofreiné	Sicherungsmutter	M14
4	11.05.016	8	8	Borgmoer	Lock nut	Écrou autofreiné	Sicherungsmutter	M16
5	12.01.008	1	1	Veerring	Spring washer	Rondelle grower	Federring	M8
6	12.01.016	4	4	Veerring	Spring washer	Rondelle grower	Federring	M16
7	12.11.016	4	4	Sluitring	Washer	Rondelle	Unterlegscheibe	M16
8	12.31.110	1	1	Zekeringsring	Circlip	Circlip	Sicherungsringe	110x4
9	15.09.060	1	1	Inlegspie	Sunk key	Clavette	Paßfeder	14x9x60
10	17.01.021	1	1	Keerring	Seal ring	Joint d'étanchéité	Simmerring	65x100x10
11	17.01.047	1	1	Keerring	Seal ring	Joint d'étanchéité	Simmerring	55x80x10
12	17.01.053	1	1	Keerring	Seal ring	Joint d'étanchéité	Simmerring	75x100x13
13	17.02.009	1	1	O-ring	O-ring	Joint torique	O-ring	134x4
14	18.08.003	2	2	Kogellager	Ball bearing	Roulement à billes	Kugellager	2212EKTN9
15	18.50.001	2	2	Trekbus	Clamping sleeve	Bague conique	Spannhüls	H312
16	18.53.013	1	1	Labyrinth ring	Labyrinth ring	Joint labyrinth	Labyrinth ring	Z-013
17	20.03.003	2	2	Smeernippel	Grease nipple	Graisseur	Schmiernippel	M8x1.25-180°
18	45.02.266	1		Rotoras kpl. m. klepels	Rotorshaft cpl.w.flails	Rotor cpl.avec fléaux	Messerwelle mit schlegel	190
	45.02.616		1	Rotoras kpl. m. klepels	Rotorshaft cpl.w.flails	Rotor cpl.avec fléaux	Messerwelle mit schlegel	RM 2307
19	45.03.190	60	72	Klepel	Flail	Fléau	Schlegelmesser	40x12
20	45.03.200	60	72	Klepelbeugel	Flail bow	Manille	Schlegelmesserbügel	
21	45.03.210	60	72	Afstandsbus	Distance bush	Bague d'entretoise	Distanzbüchse	
22	45.03.220	60	72	Zeskantbout	Bolt	Vis	Sechskantschraube	M14x88/20-12.9
23	45.04.070	1	1	Lagerdeksel	Bearing cover	Couvercle de palier	Lagerdeckel	
24	45.04.090	1	1	Lagerhuis	Bearing house	Palier à roulement	Lagergehäuse	
25	45.04.100	1	1	Afstandsbus	Distance bush	Bague d'entretoise	Distanzbüchse	
26	45.04.221	1	1	Lagerplaat	Bearingplate	Plaque de palier	Lagerplatte	
27	45.04.276	1	1	Flensas	Flange shaft	Bride+arbre	Flanschwelle	
28	45.04.280	1	1	Lagerhuis	Bearing house	Palier à roulement	Lagergehäuse	
29	45.04.283	1	1	Afstandsbus	Distance bush	Bague d'entretoise	Distanzbüchse	
30	45.04.286	1	1	Afstandsbus	Distance bush	Bague d'entretoise	Distanzbüchse	

Votex Looprol Roller Rouleau palpeur Laufwalze

Roadmaster 07



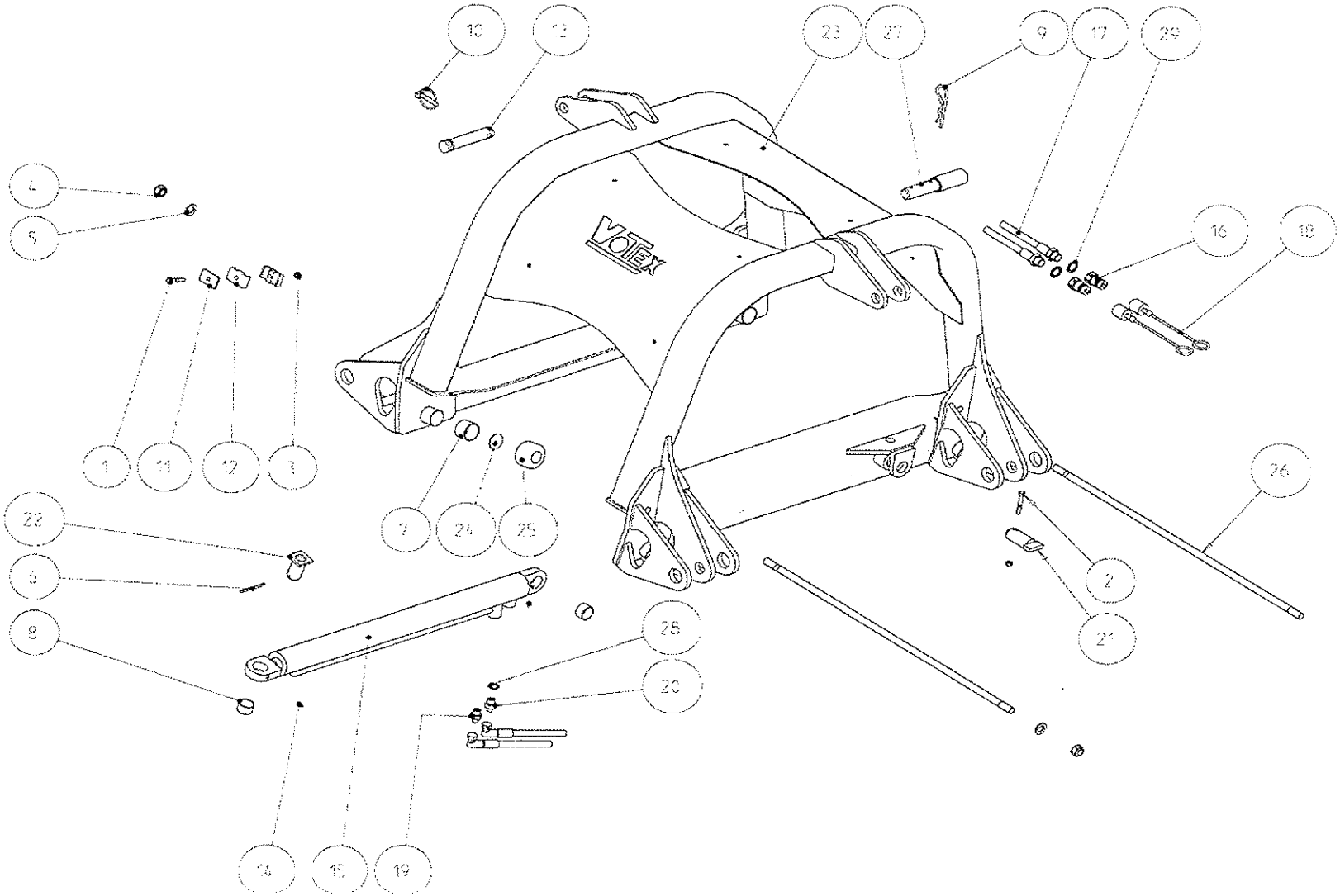
Votex Roadmaster 07

no.	onderdeel nummer	Aantal 1907	Aantal 2307	**Looprol** Omschrijving	**Roller** Discription	**Rouleau palpeur** Designation	**Laufrolle** Beschreibung	technische info
1t/m25	45.05.016	1		Looprol set cpl.	Roller set cpl.	Ens. rouleau+fixations	Laufwalze satz kpl.	L=1970/D159
	45.05.017		1	Looprol set cpl.	Roller set cpl.	Ens. rouleau+fixations	Laufwalze satz kpl.	L=2330/D159
1	10.02.207	4	4	Zeskanttapbout	Bolt	Vis	Sechskantschraube	M16X45-8.8
2	10.04.158	2	2	Zeskantbout	Bolt	Vis	Sechskantschraube	M12x60-8.8
3	10.29.123	4	4	Verzonken schroef	Socket screw	Vis á tête fraisée	Senkschraube	M10x40
4	10.28.595	8	8	Cilinderkopschroef	Cilinderheadscrew	Vis à tête cilindrique	Zylinderkopfschraube	M8x45-12.9
5	11.05.010	4	4	Borgmoer	Lock nut	Écrou autofreiné	Sicherungsmutter	M10
6	11.05.012	2	2	Borgmoer	Lock nut	Écrou autofreiné	Sicherungsmutter	M12
7	11.05.016	4	4	Borgmoer	Lock nut	Écrou autofreiné	Sicherungsmutter	M16
8	12.01.008	8	8	Veerring	Spring washer	Rondelle grower	Federring	M8
9	12.11.010	4	4	Sluitring	Washer	Rondelle	Unterlegscheibe	
10	12.30.030	2	2	Zekeringsring	Circlip	Circlip	Sicherungsringe	30x1.5
11	12.31.062	2	2	Zekeringsring	Circlip	Circlip	Sicherungsringe	62x2
12	17.01.045	2	2	Keerring	Seal ring	Joint d'étanchéité	Simmerring	40x55x8
13	17.05.007	2	2	Viltring	Felt ring	Joint de feutre	Filzdichtung	
14	18.01.005	2	2	Kogellager	Ball bearing	Roulement à billes	Kugellager	6206
15	18.04.007	2	2	Kogellager	Ball bearing	Roulement à billes	Kugellager	6206-RS1
16	20.03.003	2	2	Smeernippel	Grease nipple	Graisseur	Schmiernippel	M8x1.25-180°
17	45.05.490	1		Schraper	Scraper	Racloire	Schürfleiste	L=1970
	45.05.500		1	Schraper	Scraper	Racloire	Schürfleiste	L=2330
18	45.05.650	2	2	Afstandsbus	Distance bush	Bague d'entretoise	Distanzbüchse	
19	45.05.710	1		Looprol cpl.	Roller cpl.	Rouleau cpl.	Laufwalze kpl.	L=1970
	45.05.716		1	Looprol cpl.	Roller cpl.	Rouleau cpl.	Laufwalze kpl.	L=2330
20	45.05.713	1		Looprolbuis	Roller tube	Tube de rouleau	Laufwalze rohr	159/1752
	45.05.720		1	Looprolbuis	Roller tube	Tube de rouleau	Laufwalze rohr	159/2112
21	45.05.733	2	2	Looprolprop	Roller plug	Cône à roulements	Laufwalzepfropfenn	
22	45.05.736	2	2	Looprolas	Roller shaft	Arbre	Laufwalze welle	
23	45.05.740	2	2	Looprolprop cpl.	Roller plug cpl.	Cône à roulements cpl.	Laufwalzepfropfenn kpl.	
24	45.25.116	1	1	Looprolhouder links	Roller support left	Support de rouleau gauche	Laufwalzestutz links	
25	45.25.113	1	1	Looprolhouder rechts	Roller support right	Support de rouleau droite	Laufwalzestutz rechts	

Opties Options Options Options

Votex Driepuntsframe 3-points linkage Attelage 3-points Dreipunktaufhängung

Roadmaster 07



Votex Roadmaster 07

No	Onderdeel nummer	Aantal	Driepuntsframe Omschrijving	Three points linkage Description	Attelage trois points Designation	Dreipunkt aufhängung Beschreibung	Technische info
1	10.04.095	2	Zeskantbout	Bolt	Vis	Sechskantschraube	M8x45-8.8
2	10.04.097	1	Zeskantbout	Bolt	Vis	Sechskantschraube	M8x55-8.8
3	11.05.008	3	Borgmoer	Lock nut	Écrou autofreiné	Sicherungsmutter	M8
4	11.05.016	4	Borgmoer	Lock nut	Écrou autofreiné	Sicherungsmutter	M16
5	12.11.016	4	Sluitring	Washer	Rondelle	Unterlegscheibe	M16
6	14.29.063	1	Splitpen	Split pin	Goupille fendue	Splinte	5x63-94
7	18.15.050	4	Glijlager	Bush	Bague d'usure	Gleitlager	40.44.30A
8	18.15.054	2	Glijlager	Bush	Bague d'usure	Gleitlager	30.34.20A
9	20.01.007	2	Borgveer dubbel	Gripclip double	Goupille beta double	Federstecker doppelt	5mm
10	20.01.039	1	Borgclip	Linch pin	Goupille clips	Klappstecker	8mm
11	20.01.067	2	Afdekplaat	Clamp plate	Plaque	Platte	
12	20.01.068	4	Leidingbeugel dubbel	Clamp double	Bride double	Rohrschelle doppelt	15mm
13	20.01.132	1	Topstangpen	Top link pin	Broche troisieme point	Bolzen	
14	20.03.003	2	Smeernippel	Grease nipple	Graisseur	Schmiernippel	M8x1.25-180°
15	26.01.340	1	Hydrauliekcilinder	Hydraulic cylinder	Verin hydraulique	Hydraulikzylinder	
16	26.10.010	2	Snelkoppeling	Hydraulic coupling	Raccord rapide hydraulique	Kupplungsstecker	1/2BSP
17	26.05.787	2	Hydrauliekslang	Hydraulic hose	Tuyau hydraulique	Hydraulikschlauch	
18	26.10.244	2	Stofkap	Dust cap	Capuchon de protection	Staubkappe	1/2"rood
19	26.10.312	1	Verloopnippel	Reduction nipple	Racord de réduction	Reduktionsnippel	1/4-3/8"BSP"
20	26.10.362	1	Verloopnippel	Reduction nipple	Racord de réduction	Reduktionsnippel	2.5mm
21	45.06.203	1	Scharnierpen	Hinge pin	Axe de charnière	Gelenkbolzen	
22	45.07.430	1	Scharnierpen	Hinge pin	Axe de charnière	Gelenkbolzen	
23	45.07.754	1	Driepuntsframe	Three points linkage	Attelage trois points	Dreipunkt Aufhängung	
24	45.07.756	4	Kunststofring	Plastic ring	Rondelle en plastique	Kunststofring	
25	45.07.760	4	Rol	Roller	Rouleau	Rolle	
	45.07.816	4	Rol cpl.	Roller cpl.	Rouleau cpl.	Rolle kpl.	pos.7+24+25
26	45.07.764	2	Draadeind	Threaded rod	Tige filetée	Gewindestange	
27	73.31.648	2	Werktuigpen	Link pin	Broche	Lenker bolzen	Kat. 2-3
28	77.26.186	2	Usit ring	Seal ring	Rondelle joint	Dichtungsring	3/8"
29	77.26.188	2	Usit ring	Seal ring	Rondelle joint	Dichtungsring	1/2"

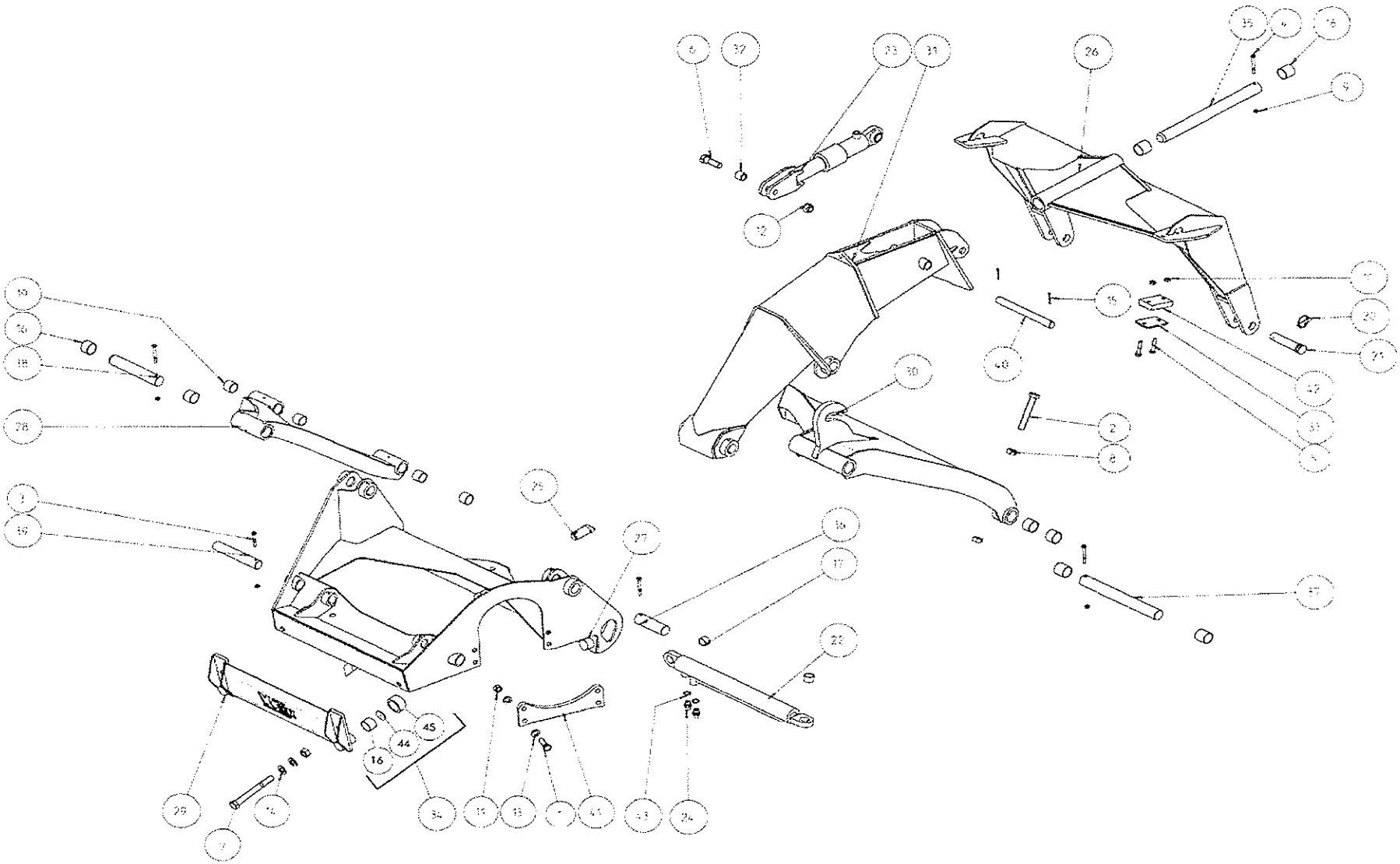
Votex
Roadmaster 07

Front getrokken bok

Front trailed linkage

Attelage frontal trainée

Front gezogener Bock



Votex Roadmaster 07

no.	onderdeel nummer	Aantal	Front getrokken bok Omschrijving	Front trailed linkage Discription	Attelage frontal traîné Designation	Front gezogener bock Beschreibung	technische info
1	10.02.208	4	Zeskanttapbout	Bolt	Vis	Sechskantschraube	M16x50-8.8
2	10.02.270	2	Zeskanttapbout	Bolt	Vis	Sechskantschraube	M20x130-8.8
3	10.04.098	2	Zeskantbout	Bolt	Vis	Sechskantschraube	M8x60-8.8
4	10.04.101	5	Zeskantbout	Bolt	Vis	Sechskantschraube	M8x75-8.8
5	10.04.125	4	Zeskantbout	Bolt	Vis	Sechskantschraube	M10x50-8.8
6	10.04.262	1	Zeskantbout	Bolt	Vis	Sechskantschraube	M20x65-8.8
7	10.04.275	2	Zeskantbout	Bolt	Vis	Sechskantschraube	M20x180-8.8
8	11.02.020	6	Zeskantmoer	Nut	Écrou	Mutter	M20
9	11.05.008	7	Borgmoer	Lock nut	Écrou autofreiné	Sicherungsmutter	M8
10	11.05.010	4	Borgmoer	Lock nut	Écrou autofreiné	Sicherungsmutter	M10
11	11.05.016	4	Borgmoer	Lock nut	Écrou autofreiné	Sicherungsmutter	M16
12	11.05.020	1	Borgmoer	Lock nut	Écrou autofreiné	Sicherungsmutter	M20
13	12.11.016	8	Sluitring	Washer	Rondelle	Unterlegscheibe	M16
14	12.11.020	4	Sluitring	Washer	Rondelle	Unterlegscheibe	M20
15	14.29.040	2	Splitpen	Split pin	Goupille fendue	Splinte	5x40-94
16	18.15.050	10	Glijlager	Bush	Bague d'usure	Gleitlager	40.44.30A
17	18.15.054	2	Glijlager	Bush	Bague d'usure	Gleitlager	30.34.20A
18	18.15.057	4	Glijlager	Bush	Bague d'usure	Gleitlager	40.44.40A
19	18.15.066	4	Glijlager	Bush	Bague d'usure	Gleitlager	35.39.30A
20	20.01.008	2	Borgclip	Linch pin	Goupille clips	Klappstecker	11mm
21	20.01.133	2	Werktuigpen	Link pin	Broche	Lenker bolzen	
22	26.01.180	1	Hydrauliekcilinder	Hydraulic cylinder	Verin hydraulique	Hydraulikzylinder	
23	26.01.336	1	Hydrauliekcilinder	Hydraulic cylinder	Verin hydraulique	Hydraulikzylinder	
24	26.10.211	2	Nippel bewerkt	Nipple processed	Mamelon labourée	Doppelnippel bearbeitet	1.5mm
25	45.06.203	1	Scharnierpen	Hinge pin	Axe de charnière	Gelenkbolzen	

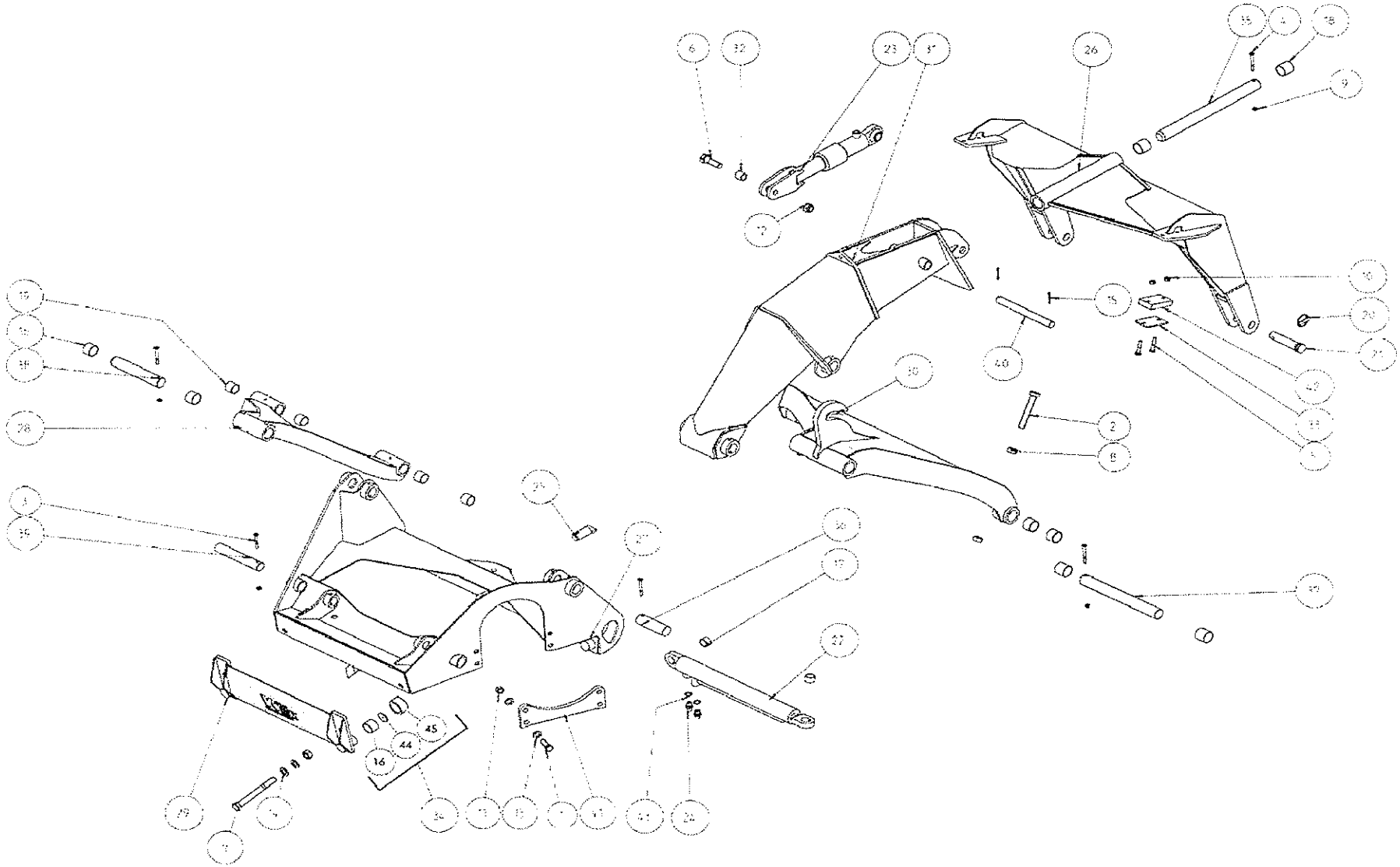
Votex
Roadmaster 07

Front getrokken bok

Front trailed linkage

Attelage frontal trainée

Front gezogener Bock

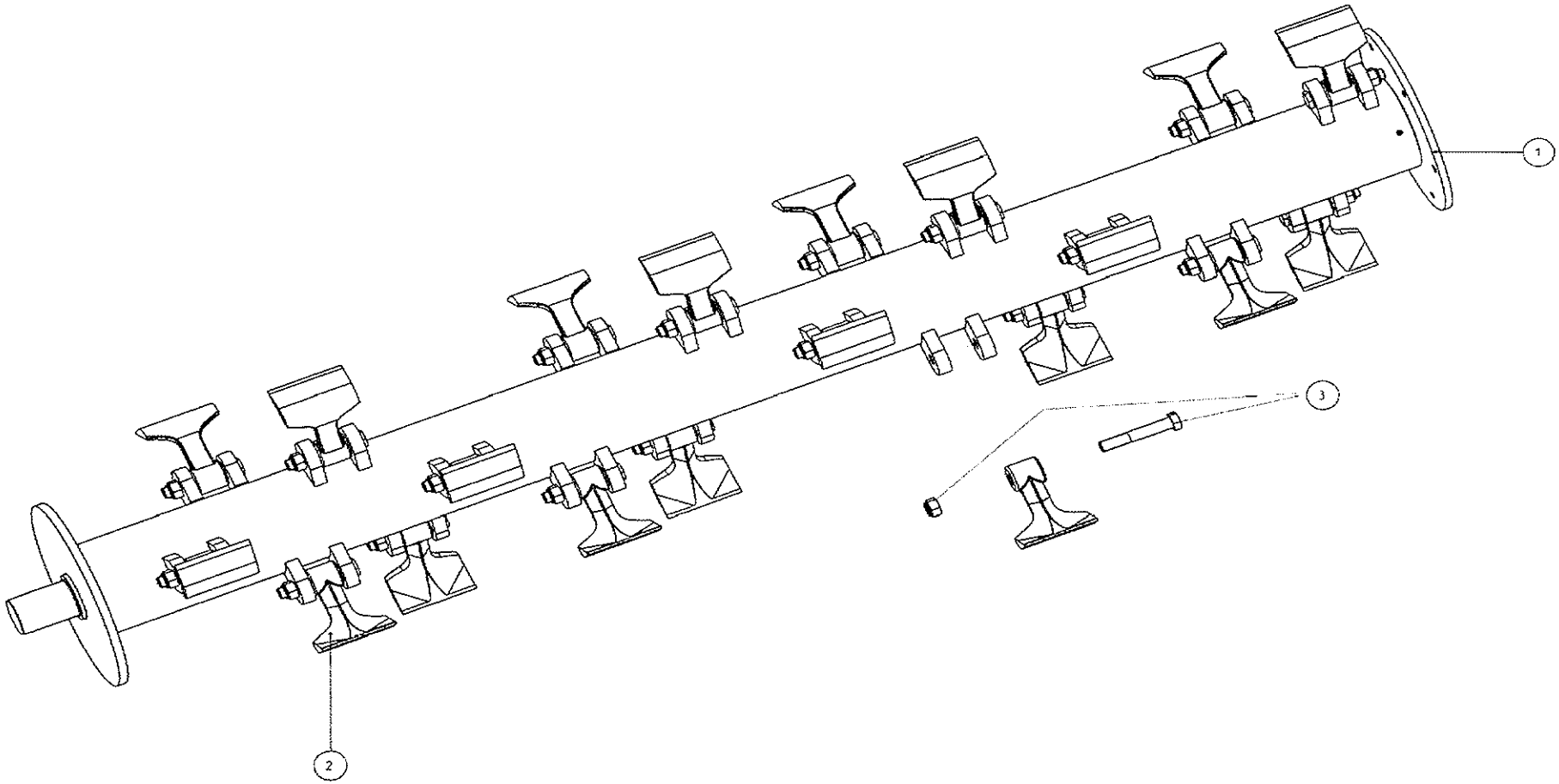


Votex Roadmaster

no.	onderdeel nummer	Aantal	Front getrokken bok Omschrijving	Front trailed linkage Discription	Attelage frontal trainée Designation	Front gezogener Bock Beschreibung	technische info
26	45.07.766	1	Driepuntsframe	Three points linkage	Attelage 3-points	Dreipunkt aufhängung	
27	45.07.771	1	Frame	Frame	Châssis	Rahmen	
28	45.07.776	1	Parallelogram arm	Parallelogram arm	Bras parallélogramme	Parallelogramm arm	
29	45.07.780	1	Montageplaat	Fixation plate	Plaque de fixation	Befestigungsplatte	
30	45.07.783	1	Parallelogram arm	Parallelogram arm	Bras parallélogramme	Parallelogramm arm	
31	45.07.787	1	Frame	Frame	Châssis	Rahmen	
32	45.07.803	1	Afstandsbus	Distance bush	Bague d'entretoise	Distanzbüchse	
33	45.07.813	2	Plaat	Plate	Plaque	Platte	
34	45.07.816	4	Rol cpl.	Roller cpl.	Rouleau cpl.	Rolle kpl.	
35	45.07.820	1	Scharnierpen	Hinge pin	Axe de charnière	Gelenkbolzen	
36	45.07.823	2	Scharnierpen	Hinge pin	Axe de charnière	Gelenkbolzen	
37	45.07.826	1	Scharnierpen	Hinge pin	Axe de charnière	Gelenkbolzen	
38	45.07.830	1	Scharnierpen	Hinge pin	Axe de charnière	Gelenkbolzen	
39	45.07.833	2	Scharnierpen	Hinge pin	Axe de charnière	Gelenkbolzen	
40	45.07.846	1	Scharnierpen	Hinge pin	Axe de charnière	Gelenkbolzen	
41	45.07.850	1	Montageplaat	Fixation plate	Plaque de fixation	Befestigungsplatte	
42	45.11.060	2	Rubber buffer	Rubber buffer	Buttoir en caoutchouc	Gummipuffer	100x60x20mm
43	77.26.186	2	Usit ring	Seal ring	Rondelle joint	Dichtungsring	3/8"
44	45.07.756	4	Kunststofring	Plastic ring	Rondelle en plastique	Kunststofring	
45	45.07.760	4	Rol	Roller	Rouleau	Rolle	

Votex Rotoras Rotorshaft Rotor Rotorwelle

Roadmaster 07

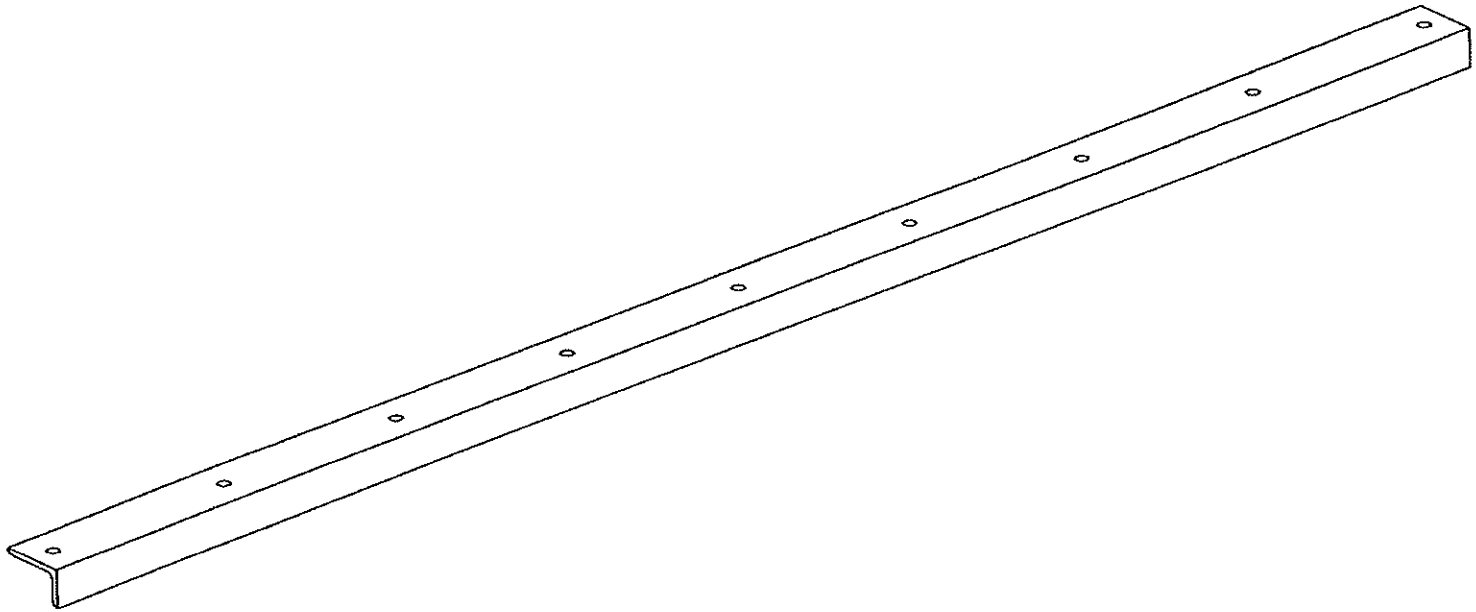


Votex Roadmaster 07

				Rotoras 1300g	Rotor 1300g	Rotor 1300g	Rotorwelle 1300g	
no.	onderdeel nummer	Aantal 1907	Aantal 2307	Omschrijving	Discription	Designation	Beschreibung	technische info
1	45.02.265	1		Rotoras kpl. m. klepels	Rotorshaft cpl.w.flails	Rotor cpl.avec fléaux	Messerwelle mit schlegel	1,3 kg
	45.02.615		1	Rotoras kpl. m. klepels	Rotorshaft cpl.w.flails	Rotor cpl.avec fléaux	Messerwelle mit schlegel	230 1.3 kg klepels
2	45.03.260	20	24	Klepel	Flail	Fléau	Schlegelmesser	1.3 kg
3	45.03.263	20	24	Klepelbout+moer	Flail bolt+nut	Vis de fléau+écrou	Schlegelschraube+Mutter	M16x100-10.9

Votex
Roadmaster 07

Haksel hoeklijn | Chopping strip | Contre-lame | Führungsstrebe

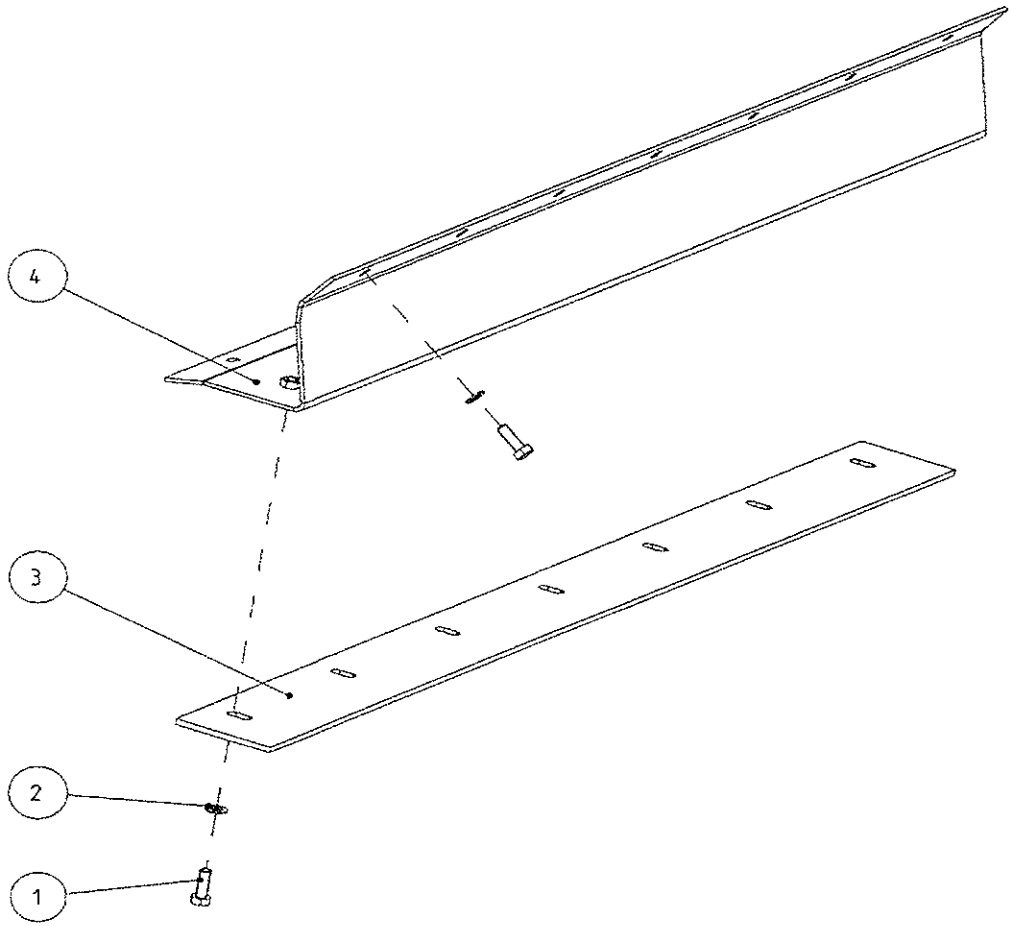


Votex Roadmaster 07

				Haksel hoeklijn	Chopping strip	Contre lame	Führungsstrebe	
no.	onderdeel nummer	Aantal 1907	Aantal 2307	Omschrijving	Discription	Designation	Beschreibung	technische info
1	45.13.293	1		Hakselhoeklijn	Chopping strip	Contre lame	Führungsstrebe	1900
2	45.13.296		1	Hakselhoeklijn	Chopping strip	Contre lame	Führungsstrebe	2300

Votex
Roadmaster 07

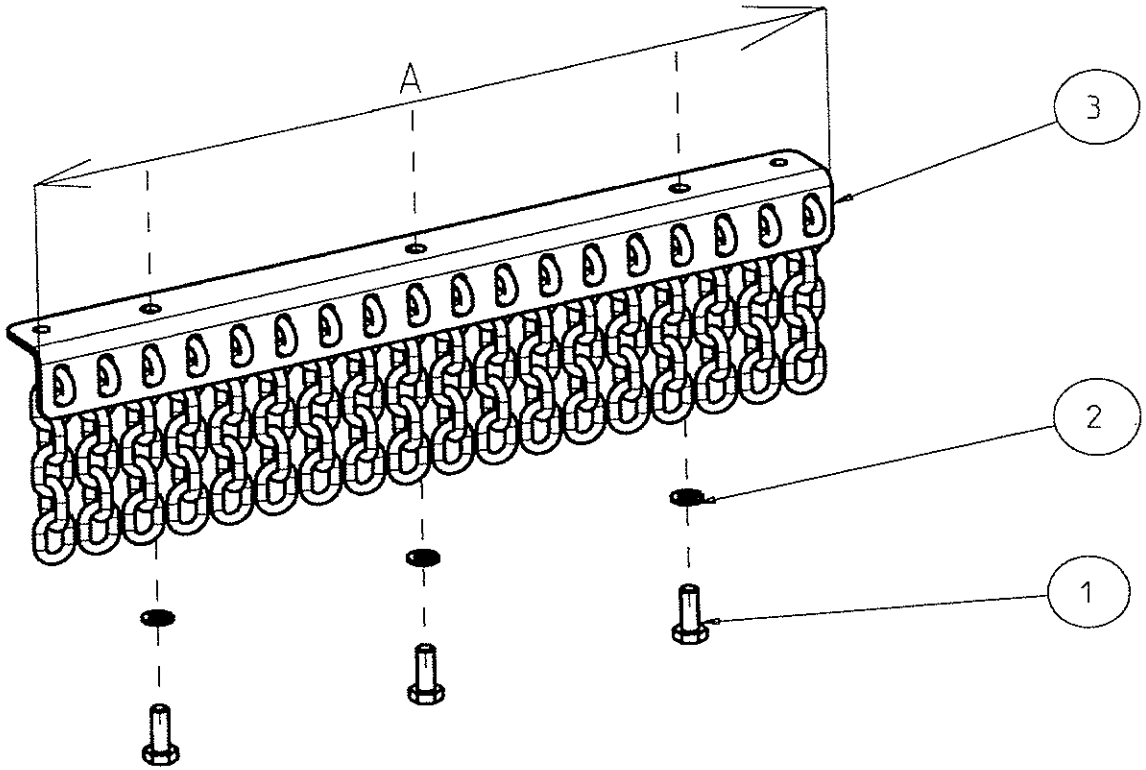
Verhakselstrip | Chopping strip | Contre-lame | Führungsstrebe



Votex Roadmaster 07

no.	Onderdeel nummer	Aantal 1907	Aantal 2307	Verhakselstrip Omschrijving	Chopping strip Discription	Contre lame Designation	Fürungsstrebe Beschreibung	technische info
1	10.02.121	11	13	Zeskanttapbout	Bolt	Vis	Sechskantschraube	M10x30-8.8
2	12.11.010	11	13	Sluitring	Washer	Rondelle	Unterlegscheibe	M10
3	45.13.120	1		Verhakselstrip	Chopping strip	Contre lame	Führungsstrebe	
	45.13.140		1	Verhakselstrip	Chopping strip	Contre lame	Führungsstrebe	
4	45.13.273	1		Steunplaat	Support	Support	Stütze	
	45.13.276		1	Steunplaat	Support	Support	Stütze	

Votex Kettingafscherming Chain protection Protection de chaîne Kettenschutz
Roadmaster 07



Votex Roadmaster 07

				Kettingafscherming	Chain protection	Protection de chaine	Kettenschutz	
no.	onderdeel nummer	190	230	Omschrijving	Discription	Designation	Beschreibung	technische info
1	10.02.121	11	13	Zeskanttapbout	Bolt	Vis	Sechskantschraube	M10x30-8.8
2	12.01.010	11	13	Veerring	Spring washer	Rondelle grower	Federring	M10
3	45.05.940	1	1	Kettingafscherming	Chain protection	Protection de chaine	Kettenschutzblech	A=526mm
	45.05.943	2		Kettingafscherming	Chain protection	Protection de chaine	Kettenschutzblech	A=702mm
	45.05.946		2	Kettingafscherming	Chain protection	Protection de chaine	Kettenschutzblech	A=878mm