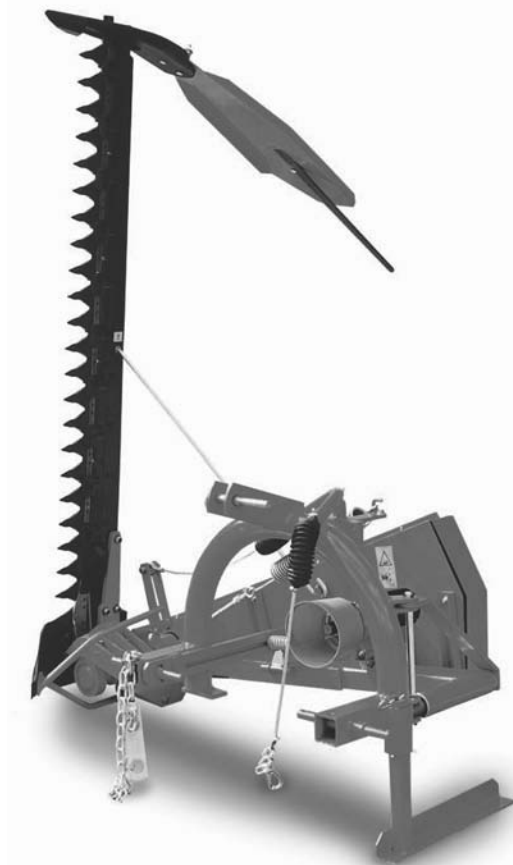


BEFCO[®]

Operator's Manual

SICKLE BAR MOWERS

BSB-005, BSB-006, BSB-007



The operator's manual is a technical service guide and must always accompany the machine.

Manual 960-372B

February 2010

SAFETY

Take note! This safety alert symbol found throughout this manual is used to call your attention to instructions involving your personal safety and the safety of others. Failure to follow these instructions can result in injury or death.



*This symbol means:
ATTENTION!
BECOME ALERT!
YOUR SAFETY IS INVOLVED!*

Signal Words

Note the use of the signal words DANGER, WARNING and CAUTION with the safety messages. The appropriate signal words for each have been selected using the following guidelines:



DANGER: Indicates an imminently hazardous situation that, if not avoided, will result in death or serious injury.



WARNING: Indicates a potentially hazardous situation that, if not avoided, could result in death or serious injury, and includes hazards that are exposed when guards are removed. It may also be used to alert against unsafe practices.



CAUTION: Indicates a potentially hazardous situation that, if not avoided, may result in minor or moderate injury.

INDEX

1 - GENERAL INFORMATION	4
1.01 - General	4
1.02 - Model and Serial Number ID	4
1.03 - Assembly Instructions	5
2 - SAFETY PRECAUTIONS	7
2.01 - Preparation	7
2.02 - Starting and Stopping	8
2.03 - Messages and Signs	8
3 - OPERATION	10
3.01 - Operational Safety	10
3.02 - Setup	12
3.03 - Pre-Operational Check	12
3.04 - Attaching to the Tractor	13
3.05 - Start Up	17
3.06 - Working Speed	18
3.07 - Operating Techniques	18
3.08 - Uneven Terrain	20
3.09 - Removing Mower from Tractor	20
4 - MAINTENANCE	22
4.01 - Maintenance Safety	22
4.02 - Service	23
4.03 - Driveline	24
4.04 - Transport	25
5 - REPAIR PROCEDURES	28
5.01 - Blade and Teeth Replacement	28
5.02 - Suggested Spare Parts	29
5.03 - Storage	29
6 - TROUBLESHOOTING	30
7 - PRE-DELIVERY CHECKLIST	31
8 - WARRANTY	32
PARTS MANUAL	37

1 - GENERAL INFORMATION

Thank you and congratulations for having chosen our implement. Your new sickle bar mower is a technologically advanced machine constructed of high quality, sturdy components that will fulfill your working expectations. Read this manual carefully. It will instruct you on how to operate and service your implement safely and correctly. Failure to do so could result in personal injury and/or in equipment damage.

1.01 - General



CAUTION: Unless otherwise specified, all hardware is metric. Use only metric tools on metric hardware. Other tools that do not fit properly can slip and cause injury.



CAUTION: Right hand and left hand sides of the implement are determined by facing in the direction the implement will travel when going forward.

1.02 - Model and Serial Number ID

Attached to the frame is an ID plate showing the model and the serial number. Record your implement model and serial number in the space provided below. Your dealer needs this information to give you prompt, efficient service when you order parts.

BEFCO	1781 S. Wesleyan Blvd. – P.O. Box 6036 Rocky Mount, N.C. 27802 – U.S.A. Tel: 1.252.977.9920 Fax: 1.252.977.9718
MODEL:	
SERIAL:	
VERSION:	

Carefully read the Warranty section¹, detailing coverage and limitations of this warranty. **Warranty** is provided for customers who operate and maintain their equipment as described in this manual. Warranty registration is accomplished by the dealer by

¹ See Chapter 8 - Warranty.

completing and forwarding the **Warranty Registration** form to the Company, along with a copy of the dealer's invoice. It is in your best interest to insure that this has been done.

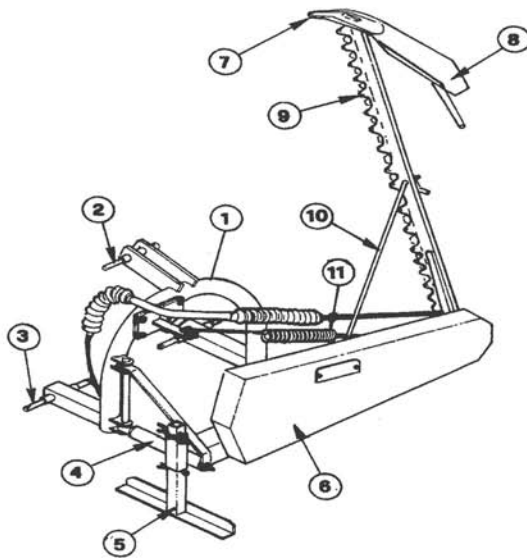
Warranty does not cover the following:

1. Cleaning, transporting, mailing and service call charges.
2. Normal wear items such as belts, blades, bearings, drivelines, shear pins, slip clutches, etc.
3. Depreciation or damage caused by normal wear, accidents, improper maintenance, improper protection or improper use.
4. The use of non-original spare parts and accessories.

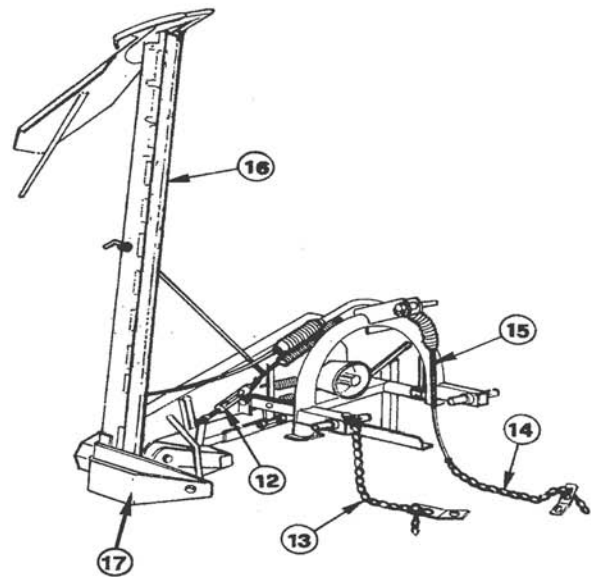
Your Authorized Company Dealer has genuine parts in stock. Only these approved replacement parts should be used.

This limited warranty covers defective material and workmanship. The cost of normal maintenance or repairs for accidents or improper use and related labor will be borne by the owner.

1.03 - Assembly Instructions



- 1) Frame
- 2) Upper 3 pt hitch linkage
- 3) Lower 3 pt hitch linkage
- 4) Frame articulation
- 5) Stand
- 6) Belt guard
- 7) Outside Skid
- 8) Swath Board



- 9) Sickle bar blade
- 10) Blade attachment rod
- 11) Compensation spring
- 12) Compensation spring adjustment rod
- 13) Blade height adjustment chain
- 14) Lifting cable adjustment chain
- 15) Blade lifting cable
- 16) Blade protection and external shoe
- 17) Skid



CAUTION: Stand clear of bands when cutting as they could be under sufficient tension to cause them to fly loose. Take care in removing bands and wire. They often have extremely sharp edges and cut very easily.

For transport purposes implements are often shipped partially assembled. Follow the instructions below to assemble the sickle bar mower:

Blade assembly instructions (see fig. 2):

1. Remove from support (#1) pulley (#3) and external snap ring $\text{\O}80$. Insert support (#1) into frame (#2) and fasten with the same snap ring. Screw on pulley (#3) and connect cable (#4) to link (#5). Mount on upper pin of support (#1) fork hinge (#4), insert cylinder shaft (#5) and fasten with hex bolt M14x65 (#6).
2. Mount the tree belts (two belts on the BSB-005) and belt guard.
3. Mount swath board (#1) (see fig. 3) and fasten with hex bolt M12x50 (#12), washer $\text{\O}12$ (#13), and self-locking nut (#14). Insert hex bolt M12x90 (#7), washer $\text{\O}12$ (#8) and fasten with self-locking nut (#11).

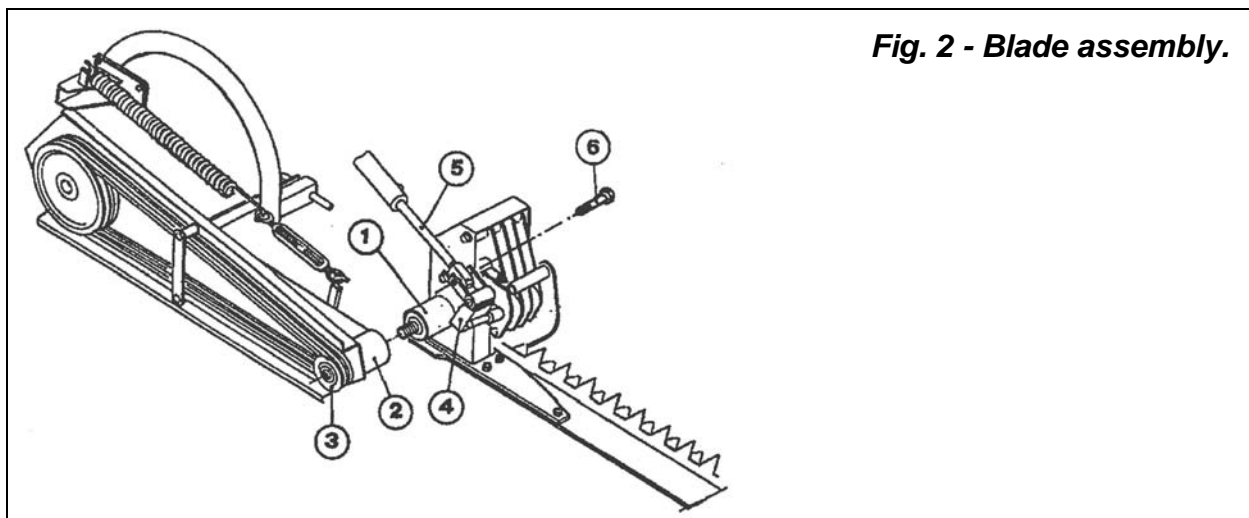


Fig. 2 - Blade assembly.

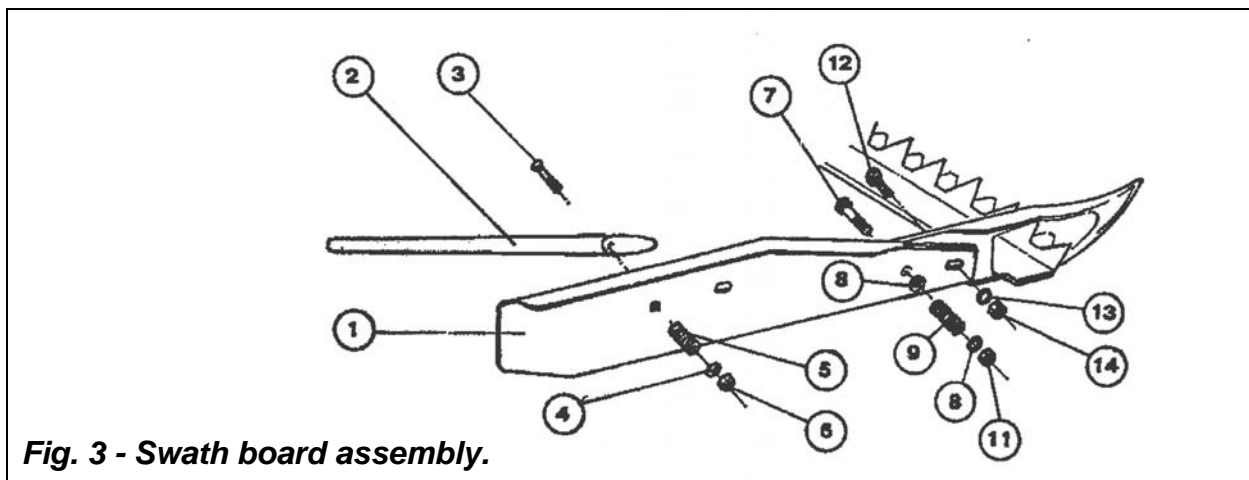


Fig. 3 - Swath board assembly.

2 - SAFETY PRECAUTIONS

Safety is the primary concern in the design and manufacture of our products. Unfortunately our efforts to provide safe equipment can be wiped out by a single careless act of an operator.

In addition to the design and configuration of equipment, hazard control and accident prevention are dependent upon the awareness, concern, prudence and proper training of personnel involved in the operation, transport, maintenance and storage of equipment. It is the operator's responsibility to read and understand all safety and operating instructions in the manual and to follow these.

Allow only properly trained personnel to operate the implement. Working with unfamiliar equipment can lead to careless injuries. Read this manual, and the manual for your tractor, before assembly or operation, to acquaint yourself with the machines. It is the owner's responsibility, if this machine is used by any person other than yourself, is loaned or rented, to make certain that the operator, prior to operating, reads and understands the operator's manuals and is instructed in safe and proper use.

2.01 - Preparation



1. Before operating equipment read and understand the operator's manual and the safety signs (**see fig. 4**).
2. Thoroughly inspect the implement before initial operation to assure that all packaging materials, i.e. wires, bands, and tape have been removed.
3. Personal protection equipment including hard hat, safety glasses, safety shoes, and gloves are recommended during assembly, installation, operation, adjustment, maintaining and/or repairing the implement.
4. Operate the implement only with a tractor equipped with an approved Roll-Over-Protective-System (ROPS). Always wear your seat belt. Serious injury or even death could result from falling off the tractor.
5. Clear area to be cut of stones, branches or other debris that might be thrown, causing injury or damage.
6. Operate only in daylight or good artificial light.
7. Ensure implement is properly mounted, adjusted and in good operating condition.
8. Ensure that all safety decals are properly installed and in good condition.

2.02 - Starting and Stopping



1. Be sure that no one is near the machine prior to engaging or while the machine is working.
2. Be sure the tractor is in "Neutral" before starting engine.
3. Never use the lifting controls when standing between the tractor and linkage.
4. Mower operating power is supplied from tractor PTO. Refer to your tractor manual for PTO engagement and disengagement instructions. Always operate PTO at 540 rpm. Know how to stop the tractor and mower quickly in case of an emergency.
5. When engaging PTO, the engine rpm should always be low. Once engaged and ready to start cutting, raise PTO speed to 540 rpm and maintain throughout cutting operation.
6. Check the tractor master shield over the PTO stub shaft. Make sure it is in good condition and fastened securely to the tractor. Purchase a new shield if old shield is damaged or missing.
7. After striking an obstacle, disengage the PTO, shut the tractor down and thoroughly inspect for damage before restarting.
8. Never engage the PTO until the mower is in the down position and resting on the ground. Never raise the mower until all blades have come to a complete stop.
9. To park the vehicle safely, stop vehicle on a level surface (not on a slope), disengage PTO, engage the parking brake, stop the engine, remove the key, and wait for engine and all moving parts to stop before leaving the operator's seat.
10. Stay clear of rotating drivelines. Entanglement in rotating driveline can cause serious injury or death. Wear close fitting clothing. Stop the engine and be sure PTO driveline is stopped before getting near it.

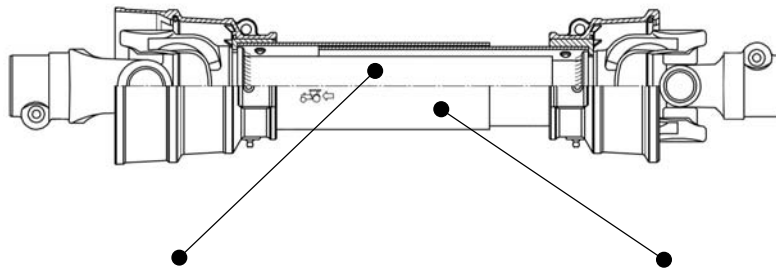
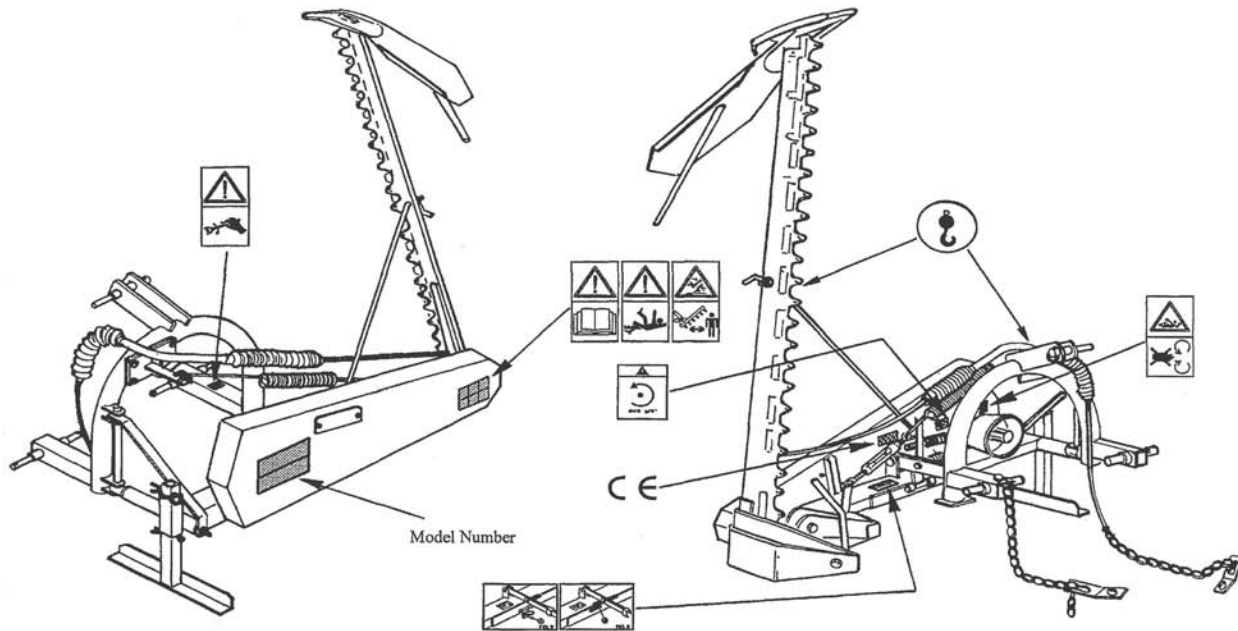
2.03 - Messages and Signs



1. Read and adhere to all safety and operating decals on this machine (**see fig. 4**).
2. Before dismounting tractor: Allow moving parts to stop, stop engine, set brake and remove the key of unattended equipment.
3. Keep safety decals in place and in good condition.
4. Keep guards and shields in place and in good condition.
5. Do not use with bystanders in area.
6. Allow no riders on tractor or implement.
7. Allow moving parts to stop before repair.
8. Securely support implement before working underneath.

Additional warning and operating decals are available at no extra charge. Please specify model and serial number when ordering.

Fig. 4 - Safety decals; replace immediately if damaged.



placed on outer tube



placed on outer shield

3 - OPERATION

You have purchased a sickle bar mower designed for the mowing of fields, ditch banks and along ponds. The sickle bar mowers can be used with tractors from 15 up to 75 HP and come in working widths of 5', 6' and 7'. The double action sickle bar mowers come complete with an adjustable top link that ensures a sharp clean cut. The double action sickle bar allows for a maximum working speed of up to 6.5 mph. Simple but tough construction along with a heavy duty PTO, weight compensation spring, transport blade protection and a safety release which protects the unit from obstructions in the field, all provide for a unit that will give years of trouble free service. Sickle bar mowers come standard with a hydraulic cylinder that makes it easy to raise the bar for mowing at an angle or for transport and storage. With the capability of mowing 90° up -75° down along with the low horsepower requirements make the sickle bars capable of handling jobs that are not recommended for conventional disc mowers.



WARNING: The sickle bar is suitable only for the uses indicated. Any other use different from that described in these instructions could cause damage to the machine and represent a serious hazard for the user.

3.01 - Operational Safety



CAUTION: Our mowers are designed considering safety as the most important aspect and are the safest available in today's market. Unfortunately, human carelessness can override the safety features built into our machines. Injury prevention and work safety, aside from the features on our mowers, are very much due to the responsible use of the equipment. It must always be operated prudently following with great care, the safety instructions laid out in this manual.



1. The use of this equipment is subject to certain hazards which cannot be prevented by mechanical means or product design. All operators of this equipment must read and understand this entire manual, paying particular attention to safety and operating instructions, prior to using.
2. Do not operate the tractor and implement when you are tired, sick or when using medication.
3. Keep all helpers and bystanders at least 50 feet from the implement. Only properly trained people should operate this machine.

4. Accidents are most likely to occur with machines that are loaned or rented to someone who has not read the operator's manual and is not familiar with the implement.
5. The majority of accidents involve entanglements on the driveline, injury of bystanders by objects thrown by the rotating blades, and operators being knocked off the tractor by low hanging limbs and then being run over by the mower. Accidents are most likely to occur with machines that are loaned or rented to someone who has not read the operator's manual and is not familiar with a rotary mower.
6. Always stop the tractor, set brake, shut off the tractor engine, remove the ignition key, lower implement to the ground and allow mower blades to come to a complete stop before dismounting tractor. Never leave equipment unattended with the tractor running.
7. Never place hands or feet under mower with tractor engine running or before you are sure all motion has stopped. Stay clear of all moving parts.
8. Do not allow riders on the mower or tractor at any time. There is no safe place for riders.
9. Do not operate unless all personnel, livestock and pets are several feet away to prevent injury by thrown objects.
10. Before backing up, disengage the mower and look behind carefully.
11. Install and secure all guards and shields before starting or operating.
12. Keep hands, feet, hair and clothing away from moving parts.
13. This mower is designed for use only on tractors with 540 rpm power take off.
14. Never operate tractor and mower under trees with low hanging limbs. Operators can be knocked off the tractor and then run over by the rotating blades.
15. The rotating parts of this machine have been designed and tested for rugged use. However, they could fail upon impact with heavy, solid objects such as steel guard rails and concrete abutments. Such impact could cause the broken objects to be thrown outward at very high velocities. To reduce the possibility of property damage, serious injury, or even death, never allow the cutting blades to contact such obstacles.
16. Frequently check mower blades. They should be sharp, free of nicks and cracks and securely fastened.
17. Stop mower immediately upon striking an obstruction. Turn engine off, remove key, inspect and repair any damage before resuming operation.
18. Stay alert for holes, rocks and roots in the terrain and other hidden hazards. Keep away from drop-offs.
19. Use extreme care and maintain minimum ground speed when transporting on hillside, over rough ground and when operating close to ditches or fences. Be careful when turning sharp corners.
20. Reduce speed on slopes and sharp turns to minimize tipping or loss of control. Be careful when changing directions on slopes. Do not start or stop suddenly on slopes. Avoid operation on steep slopes.
21. When using a unit, a minimum 20% of tractor and equipment weight must be on tractor front wheels. Without this weight, tractor could tip over, causing personal injury or death. The weight may be attained with a front end loader, front wheel weights, ballast in tires or front tractor weights. When attaining a minimum 20% of

- tractor and equipment weight on the front wheels, you must not exceed the ROPS weight certification. Weigh the tractor and equipment. Do not guess or estimate!
22. Inspect the entire machine periodically². Look for loose fasteners, worn or broken parts, and leaky or loose fittings.
 23. Use only the driveline supplied with the mower. Do not use it if it is missing any shield or safety protection.
 24. Pass diagonally through sharp dips and avoid sharp drops to prevent "hanging up" tractor and mower.
 25. Avoid sudden starts and stops while traveling up or downhill.
 26. Always cut down slopes; never across the face. Avoid operation on steep slopes. Slow down on sharp turns and slopes to prevent tipping and or loss of control.

3.02 - Setup

Notice to dealer: Pre-delivery setup and service including lubrication is the responsibility of the authorized dealer. It is up to him to assure that the machine is in perfect condition and ready to be used. It is his responsibility to ensure that the customer is aware of all safety aspects and operational procedures for the mower. He must also fill out the Pre-Delivery Checklist³ prior to delivering the mower.

3.03 - Pre-Operational Check

IMPORTANT: Check each of the following, carefully, prior to engaging the equipment:

1. All lubrication points have been greased.
2. The belts for proper tension.
3. The driveline cross and bearings have been greased.
4. No wrappings or foreign objects are around the blades, belts or driveline.
5. The blades are properly installed.
6. All hardware is tight.
7. The tractor, to ensure correct direction of PTO and rpm speed.
8. All safety shields and guards are in place and tightly attached.
9. No people or animals are in the work area.
10. When working, make sure the tractor hitch is in the "float" position, in order to allow the mower to follow the contour of the ground.



DANGER: Stay clear of rotating driveline. Entanglement in rotating driveline can cause serious injury. Disengage PTO, engage parking brake or place transmission in "Park", shut off the tractor and remove the key before working around hitch, attaching or detaching driveline, making adjustments, servicing or cleaning the machine.

² See Chapter 4 - Maintenance.

³ See Chapter 7 - Pre-Delivery Checklist.

3.04 - Attaching to the Tractor

Models BSB-006 and BSB-007 may be used on tractors up to 75 HP and a category 1 or 2 three point hitch. Model BSB-005 may be used on tractors up to 35 HP and a category 1 three point hitch on BSB-005⁴.



CAUTION: Check the tractor PTO rpm to ensure it is set at 540 and turns clockwise.



CAUTION: Always ensure that the tractor tire pressure is correct according to the tractor operator's manual.



DANGER: Failure to ensure a secure coupling of the implement to the tractor can cause injury and damage to the implement or tractor.

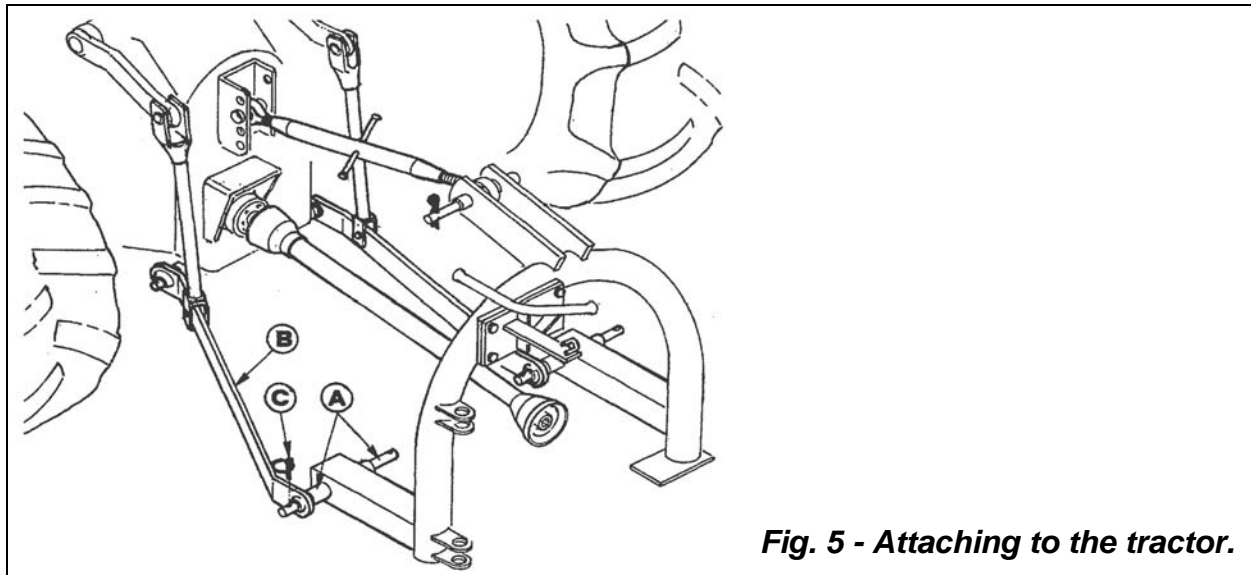


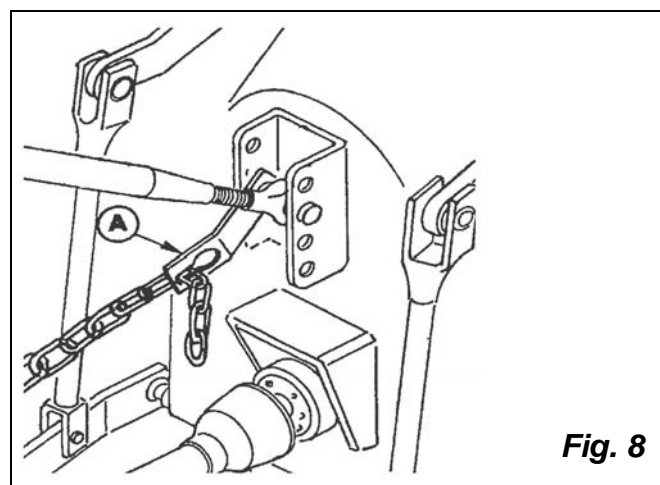
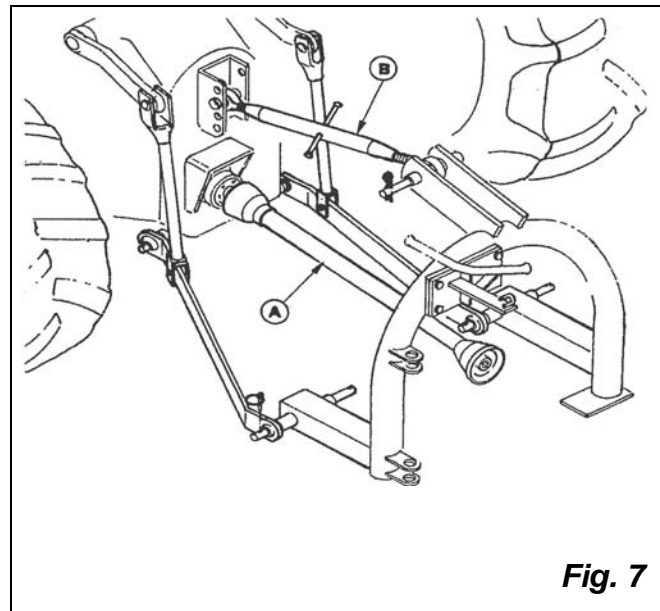
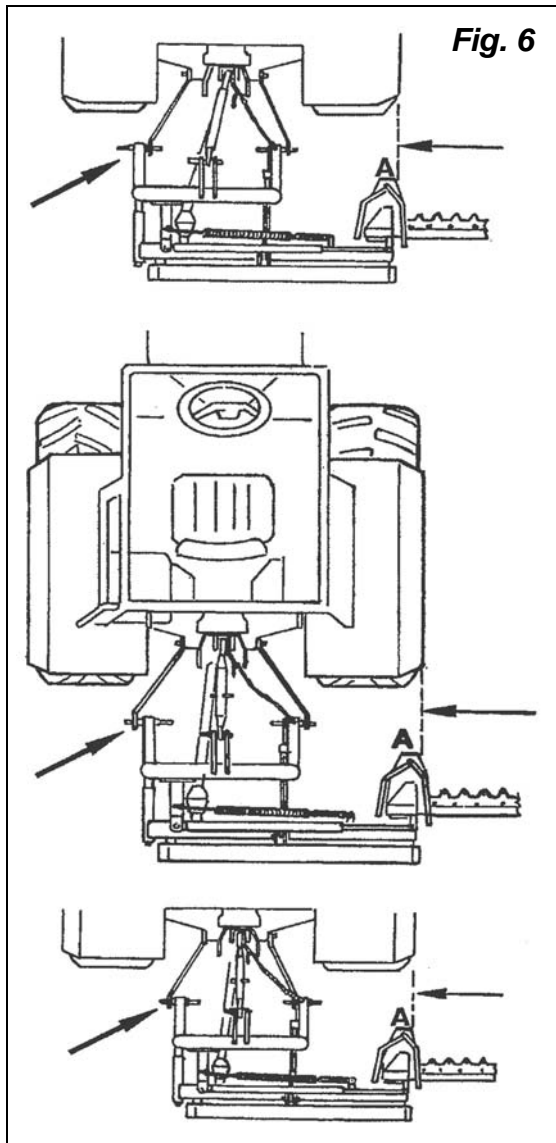
Fig. 5 - Attaching to the tractor.

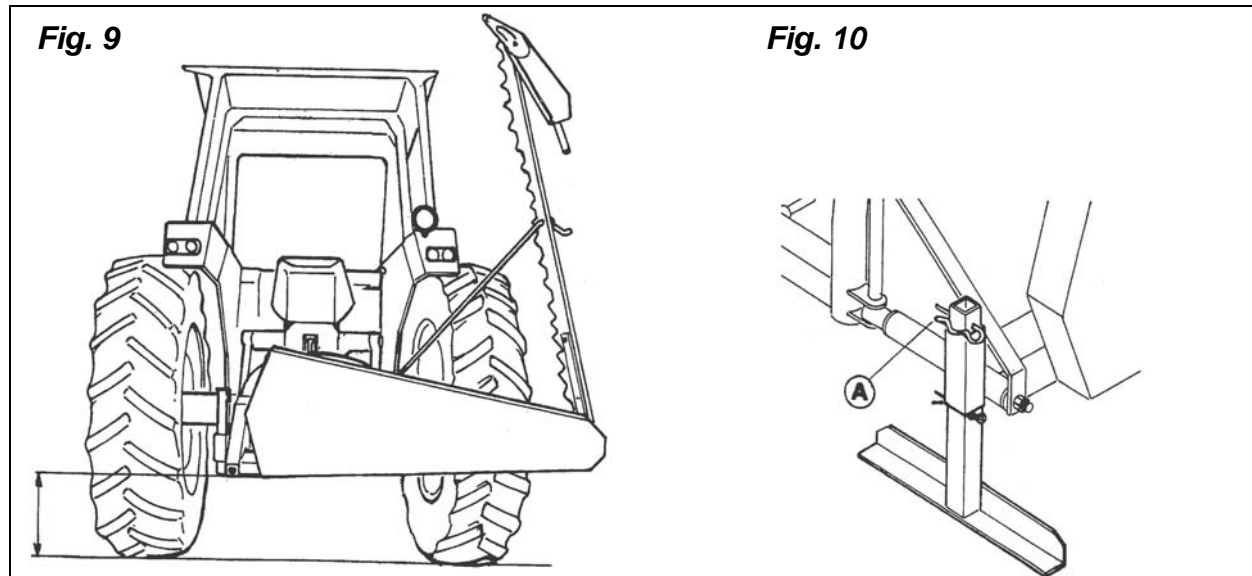
Before connecting the unit to the tractor, make sure that all parts are properly in place and that all bolts and nuts are well tightened and all parts are correctly lubricated.

1. Make sure that pins (A) of the three point hitch are clean and greased, connect them to the tractor link arms (B) and block with lynch pins (C) (**see fig. 5**). **IMPORTANT:** According to the type of tractor you have, use either internal or external hitch pins in order that the inner skid of the sickle bar mower (A) (**see fig. 6**) remains behind the tractor wheel.

⁴ See Table 2, page 27.

2. Connect the PTO shaft and three point hitch top link (B) (see fig. 7).
3. Attach the chain hitch plate to the three point hitch (see fig. 8) or use the "U" bolt (supplied with the mower) to connect the chain to the tractor. Make sure that the chain is connected at approximately the same height of the three point hitch and to a rigid location of the tractor.
4. Install PTO shaft to tractor and make sure shaft is locked on the tractor PTO prior to engagement. Check that PTO shaft guard is free to turn and secure it with the relative latches. Remove the guard over the cutting blades.
5. Using hydraulic lift raise sickle bar mower and adjust chain (see fig. 8) so that PTO shaft is horizontal. Clearance of lower part of sickle bar mower frame should be of 16" from ground (see fig. 9).
6. After the adjustment is completed, mark chain ring in order to have always the same cutting height. Raise foot support and bring into working position and fasten with split pin (A) (see fig. 10).

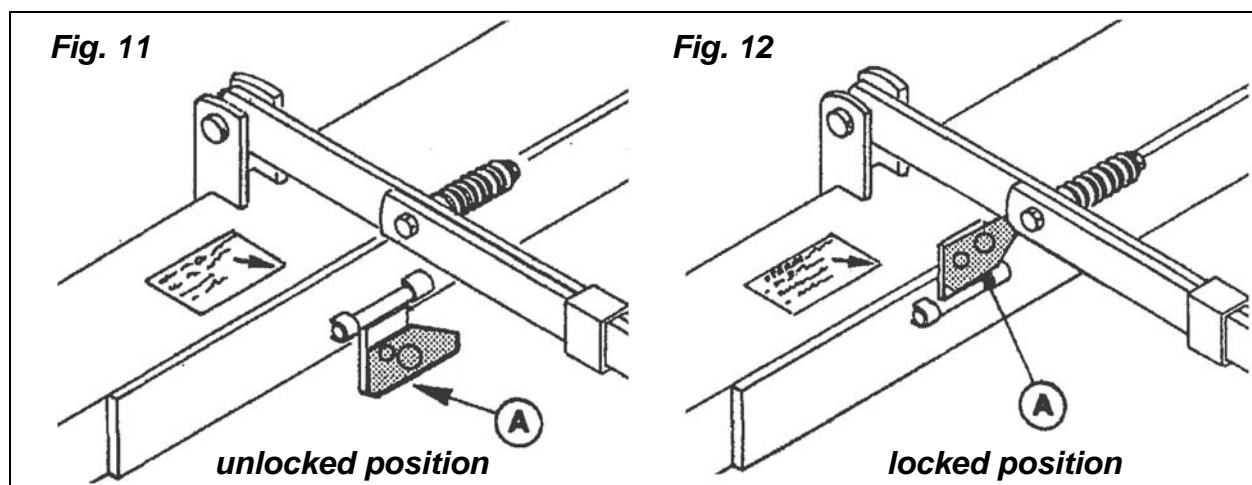




IMPORTANT: See Section 4.03 - Driveline, to ensure the driveline is the proper length.

Hydraulic lift system (BSB-006 & BSB-007):

1. Before starting working operations turn release support (A) downwards (**see fig. 11**).
2. Before disconnecting unit from tractor turn release support (A) upwards (**see fig. 12**). This will allow operator to keep the two pins in horizontal position and facilitate successive linkage operations.
3. Connect hydraulic hose to tractor.
4. Mount on tractor and close cylinder using the appropriate lever. This will raise unit completely.
5. **IMPORTANT:** Never close hydraulic cylinder if release support (A) has not been turned downwards (**see fig. 11**).
6. Check that raising and lowering operations of sickle bar mower blade are smooth. If adjustments are necessary read instructions below under "hydraulic cylinder flow valve adjustments".



Hydraulic lift system (BSB-005):

1. Connect hydraulic hose to tractor.
2. Mount on tractor and close cylinder using the appropriate lever. This will raise unit completely.
3. Check that raising and lowering operations of sickle bar mower blade are smooth. If adjustments are necessary read instructions below under "hydraulic cylinder flow valve adjustments".

Sickle bar mowers are equipped with a flow regulation valve that allows operator to adjust the speed at which the cutting bar is raised or lowered.

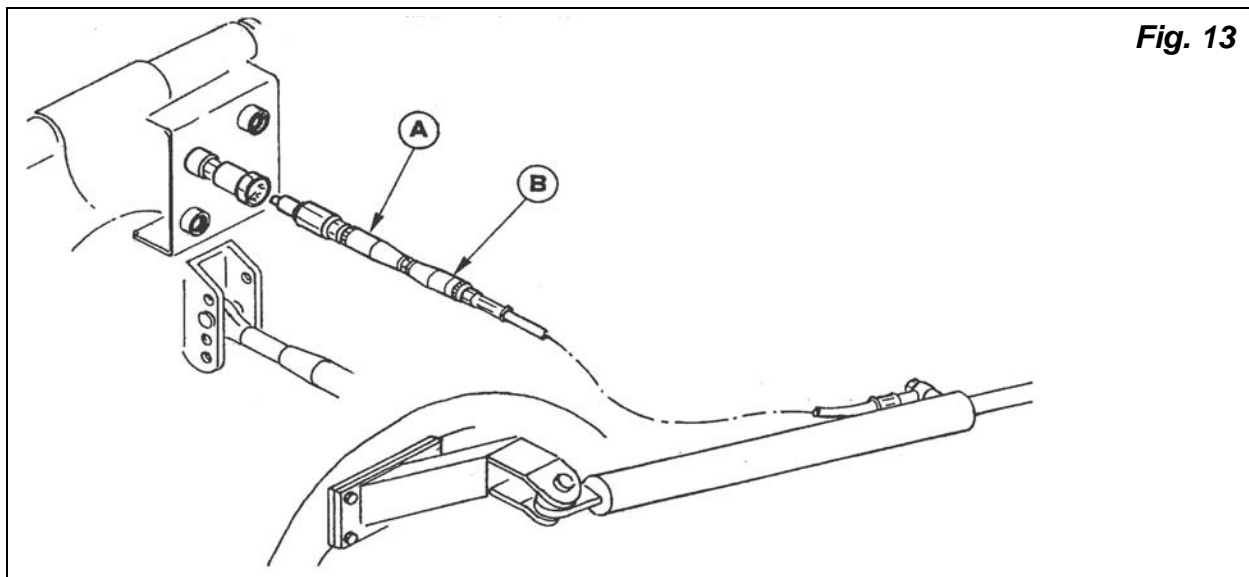
Hydraulic cylinder flow valve adjustments (all models):

To adjust raising and lowering speed of sickle bar mower blade proceed as follows:

- If blade raises up too fast, from tractor seat turn valve (A) in clockwise direction (**see fig. 13**). This will gradually reduce oil flow and consequently reduce speed. Adjust until you obtain a slow raising movement.
- If descend speed of blade is too fast, from tractor seat turn valve (B) in a counterclockwise direction. This will gradually reduce oil flow and consequently reduce descending speed. Adjust until you obtain a slow movement.



WARNING: An improper adjustment of the flow regulation valve that results in cutting bar to be raised or lowered too rapidly may cause implement failure and personal injury.



3.05 - Start Up

Lower mower to the ground using the hydraulic lift. Step down from tractor and remove blade attachment rod (A) (see fig. 20) and place in position on frame. Lower sickle bar mower blade. During working operations ensure that release support (A) (see fig. 11) is in the downward position.



DANGER: The mower must always be lowered to the ground before starting tractor engine or engaging PTO lever. It is forbidden to stand between the tractor and linkage to operate the lifting controls of the tractor from outside of the drivers seat.

With the engine idling, slowly engage the PTO drive. Move the throttle lever until the PTO speed indicated on the mower is obtained.

The mower is set for a PTO speed of 540 rpm.

Shift the transmission to a slow speed gear and start forward, increase the ground speed by shifting upward until the desired speed is obtained.



CAUTION: Do not operate this mower at a PTO speed or direction of rotation other than that shown on the mower. Serious damage can occur to the machine and/or the operator.

Before starting to mow, never forget that the **operator is responsible** for the following:

1. Safe and correct driving of the tractor and mower.
2. To learn precise safe operating procedures for both the tractor and the mower.
3. To ensure all maintenance and lubrication has been performed on the mower.
4. To have read and understood all safety aspects for the mower in the operator's manual.
5. To have read and understood all safety decals on the mower.
6. Checking the condition of the blades. Worn or damaged blades should be changed before starting.
7. Checking that there is no wire, weed, grass or other material wrapped around blades.
8. Checking to see if front weights need to be added to the tractor in order to maintain balance.
9. Checking the tractor tires for the proper pressure in accordance with the tractor operator's manual.
- 10. Checking that the PTO shield, belt shields and all other shielding are on the machine and securely in place.**
11. Making sure the proper attire is worn. Avoiding loose fitting clothing which can become entangled. Wearing sturdy, tough-soled work shoes and protective equipment for eyes, hands, ears and head. Never operate tractor or implements in bare feet, sandals or sneakers.

12. Checking area for stones, branches and other debris that might be thrown.
13. Ensuring proper lighting is available, sunlight or good artificial lighting.

3.06 - Working Speed

The mowing speed depends on ground conditions, tractor HP, mowing height, and grass thickness. Only a test run will enable you to gauge the optimal working speed for your conditions. Under most conditions a 5 to 6 mph ground speed is best. For a good quality cut it is recommended to keep a steady work speed no slower than 5 mph. This will facilitate grass discharge. Working speed should never exceed 6.5 mph to avoid damage to the unit.

In order to avoid clogging up of blade or if grass is tangled or flattened it is recommended to keep cutting bar grazing the ground.

In order to obtain the best cut possible, always keep the tractor rpm up to the speed indicated on the mower. When increasing or decreasing mowing ground speed, always use gear selection, not engine speed. This will maintain the constant maximum blade speed necessary for a clean cut.

All of the following factors are important in selecting the proper forward speed:

1. Height of grass.
2. Type of grass.
3. Density of grass.
4. Type of terrain.
5. Grass condition, wet or dry.

3.07 - Operating Techniques



DANGER: If blades become jammed it is advisable to operate carefully wearing adequate personal protection before attempting to free them from obstruction.

Always operate PTO at 540 rpm. This is necessary to maintain proper blade speed, obtain a clean cut and reduce the risk of jamming the blades.

Always raise the implement before reversing or changing direction.

Safety release breakaway latch

The sickle bar mower is protected with a safety release mechanism. If an obstruction is hit the cutter bar will swing back. If this were to occur, immediately stop tractor, disengage PTO, lock parking brake and turn off tractor engine without raising sickle bar. Ensure that the inner and outer tubes of the PTO shaft are not separated. If they are separated, reassemble PTO shaft in correct position.

To reset safety release; back up tractor until latch returns to its normal position. If safety release latch breaks away too often adjust spring (B) using nut (A) (**see fig. 14**) and tighten half turn at the time.

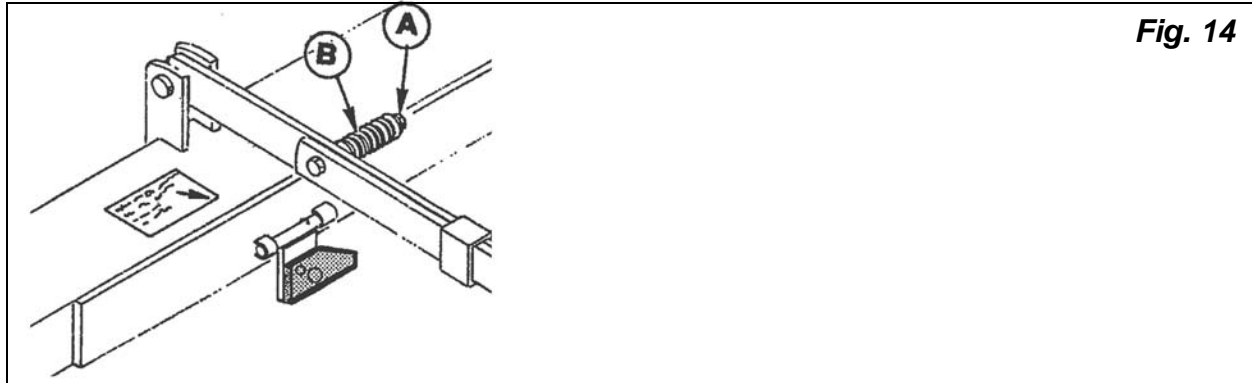


Fig. 14

Belt tension

Check periodically belt tension. Unscrew small window opening (A) on protection guard (see fig. 16). If necessary, tighten belt using nut and jam nut (A), (see fig. 15).

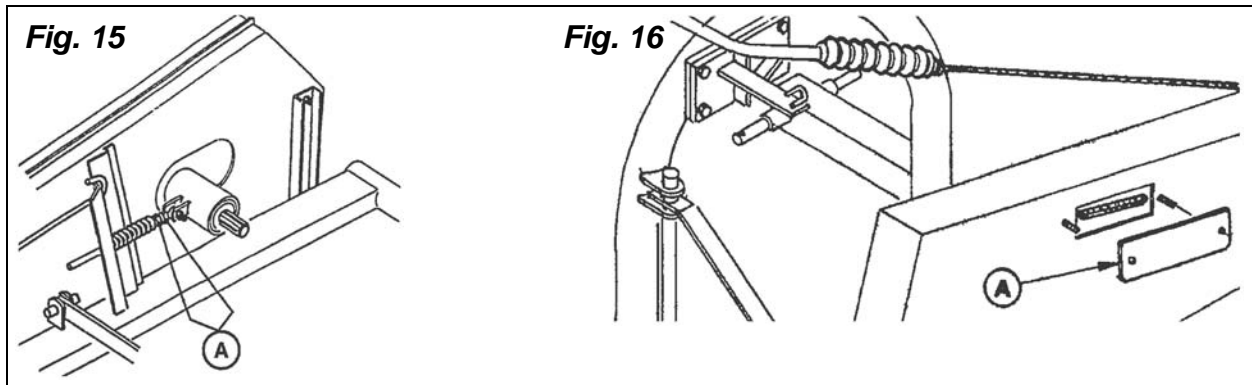


Fig. 15

Fig. 16

Cutting height adjustment

Lower sickle bar mower on ground and adjust turnbuckle on top link (A) (see fig. 17) until the desired cutting height is obtained.

In rough ground conditions or on stony terrain make sure that cutting height is adequate in order to avoid damage to cutting bar.

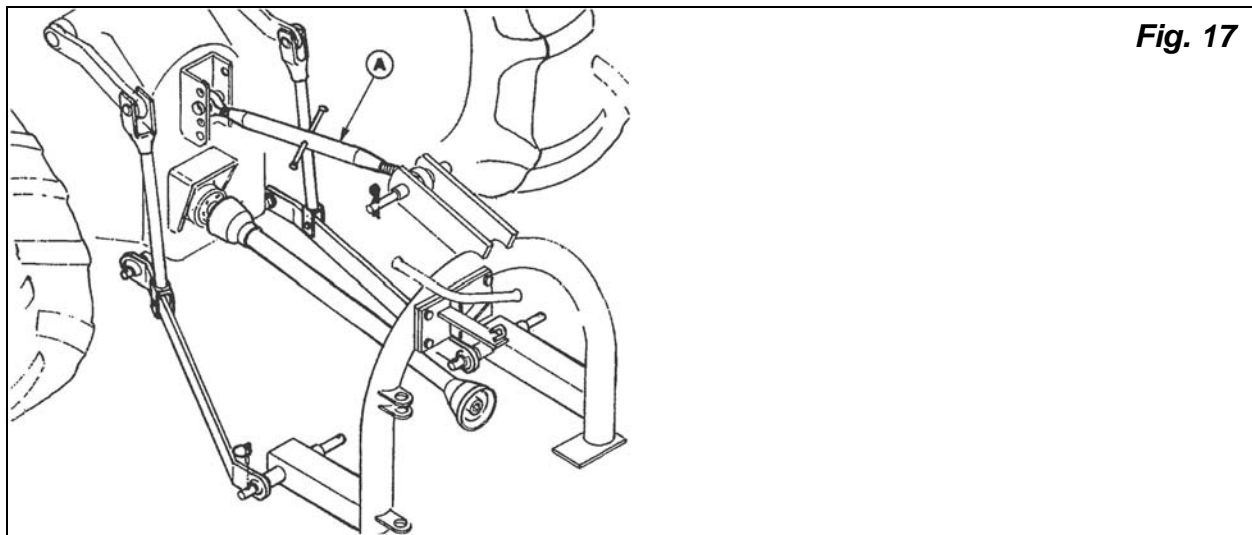


Fig. 17



DANGER: The mower blades can throw objects hundreds of feet which could result in personal or property damage.

Pick up all rocks and other debris before mowing.

Enter new areas carefully. Cut grass higher at first, allowing mower to clear hidden objects.



CAUTION: For emergency reasons learn how to stop the tractor and mower quickly. On the sickle bar mower always disengage the PTO, lock parking brake, stop engine and allow the blades to come to a complete stop before dismounting the tractor.

3.08 - Uneven Terrain



DANGER: Be careful of rollover when operating tractor and implement over uneven ground.

The following precautions should always be observed when working on uneven terrain:

1. In extremely uneven terrain rear wheel weights, front tractor weights, and/or tire ballast should be used to improve stability.
2. Observe the type of terrain and develop a safe working pattern.
3. Whenever traction or stability is doubtful, first test drive over the terrain with the PTO disengaged.
4. Operate the implement up and down steep slopes, not across slopes, to prevent the tractor from tipping. Avoid sudden stops and starts, slow down before changing directions on a slope.
5. Pass diagonally through sharp dips and avoid sharp drops to prevent hanging up the tractor and implement.
6. Slow down on sharp turns and slopes to prevent tipping or loss of control.
7. Watch for holes, roots or other hidden objects. Do not use near the edge of a gully, ditch or stream bank.

3.09 - Removing Mower from Tractor

To remove the mower from the tractor do the following:

1. Set up sickle bar on level and solid ground.
2. Disengage tractor PTO.
3. Set parking brake.
4. Raise the sickle bar mower completely.
5. Using lever on tractor, draw out cylinder shaft about 10".

6. Step down from tractor and disconnect chain.
7. On BSB-006 and BSB-007 models, turn release support (A) upwards (**see fig. 12**). This will keep linkage pins in horizontal position in order to facilitate next hitching operations.
8. Replace safety shield on cutting bar.
9. Put support stand in position and secure with pin (**see fig. 10**).
10. Lower sickle bar to the ground.
11. Stop engine and remove key from ignition.
12. Disconnect mower driveline from tractor PTO shaft.
13. Disconnect hydraulic hose.
14. Disconnect three point linkage and carefully drive tractor away from mower.



DANGER: Avoid injury from blade. Always replace safety shield on cutting bar when mower is not in use.



CAUTION: Disengage tractor PTO. Set parking brake. Stop engine and remove key from ignition. Disconnect mower driveline from tractor PTO shaft. Collapse driveline and secure it in a safe place. Disconnect three point linkage and carefully drive tractor away from mower.

4 - MAINTENANCE



DANGER: Stop engine, lock parking brake and remove key before performing any service or maintenance.

Never rely on the tractor lift system. Install blocks or stands under the implement to prevent it from falling.

Always use personal protection devices, such as glasses or gloves when performing maintenance.

Keep fingers out of slots to prevent injury.

4.01 - Maintenance Safety



1. Good maintenance is your responsibility.
2. Keep service area clean and dry. Be sure electrical outlets and tools are properly grounded. Use adequate light for the job at hand.
3. Make sure there is plenty of ventilation. Never operate the engine of the towing vehicle in a closed building. The exhaust fumes may cause asphyxiation.
4. Make no repair or adjustments with the tractor engine running. Before working on the machine, disengage the PTO, shut off the engine, set the brakes, and remove the ignition key.
5. Be certain all moving parts on attachment have come to a complete stop before attempting to perform maintenance.
6. Never work under equipment unless it is blocked securely.
7. Always use personal protection devices such as eye, hand and hearing protectors, when performing any service or maintenance.
8. Frequently check mower blades. They should be sharp, free of nicks and cracks and securely fastened.
9. Periodically tighten all bolts, nuts and screws and check that all cotter pins are properly installed to ensure unit is in a safe condition.
10. When completing a maintenance or service function, make sure all safety shields and devices are installed before placing unit in service.
11. Do not attempt to mount a tire unless you have the proper equipment and experience to do the job.
12. Inflating or servicing tires can be dangerous. Whenever possible, trained personnel should be called to service and/or mount tires.
13. After servicing, be sure all tools, parts and service equipment are removed.

14. Never replace hex bolts with less than grade five bolts unless otherwise specified, i.e. shear bolts⁵.
15. Where replacement parts are necessary for periodic maintenance and servicing, genuine replacement parts must be used to restore your equipment to original specifications. The company will not claim responsibility for use of unapproved parts and/or accessories and other damages as a result of their use.
16. Unauthorized modifications to the machine may impair the function and/or safety of the machine and reduce its life. If equipment has been altered in any way from original design, the manufacturer does not accept any liability for injury or warranty.

4.02 - Service

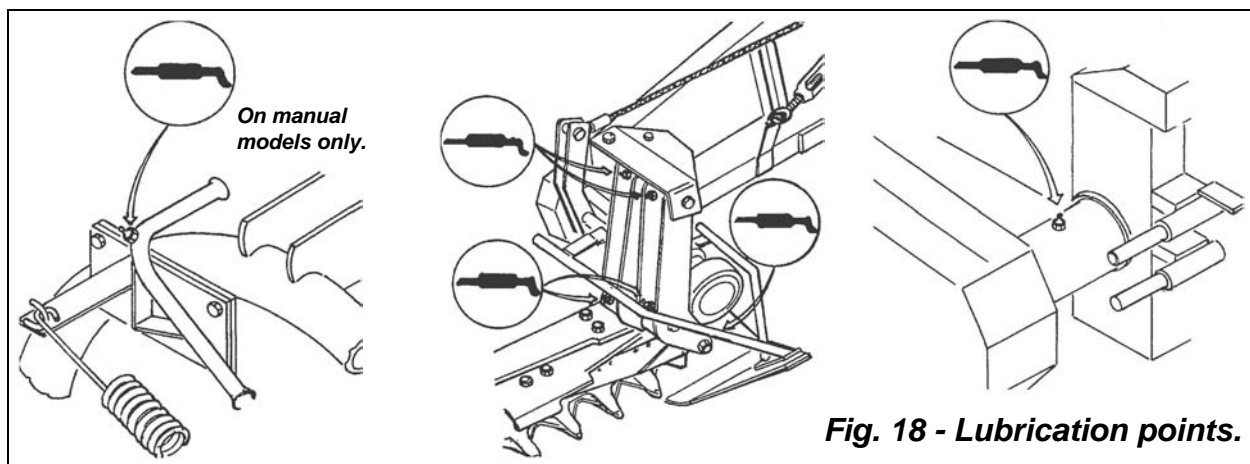
The chart below gives the frequency of lubrication in hours, based on normal operating conditions. Severe or unusual conditions may require more frequent lubrication.

Use a good quality SAE multipurpose type grease for all locations shown. Be sure to clean fittings thoroughly before using grease gun.

After each mowing job:

Clean and oil the cutting blades, to do this:

Raise sickle bar mower using hydraulic lift. Make sure tractor is well parked and set brakes. Start sickle bar mower and wash with water using a water hose and standing at a safe distance from unit. Make sure no one is near machine. Turn tractor engine off and disconnect PTO shaft. Check conditions of blade and of unit in general. When machine is dry lubricate knives and blade with oil. Turn tractor on and start mower for a few seconds. Turn tractor off, disconnect PTO shaft and install blade and external shoe protection.



Every 2 hours:

Grease all points on implement (see fig. 18).

⁵ Refer to Table 1 - Torque Specifications, page 27.

Every 8 hours:

Grease PTO shaft and all telescoping parts. Adjust belt tension. Belt slack must not exceed one inch.

Every 25 hours:

Check hardware tightness; vibration can loosen bolts. Check tightness of the hardware periodically⁶.

Every 50 hours:

Check the clearance between the cutting blades and the upper blade guide.

4.03 - Driveline

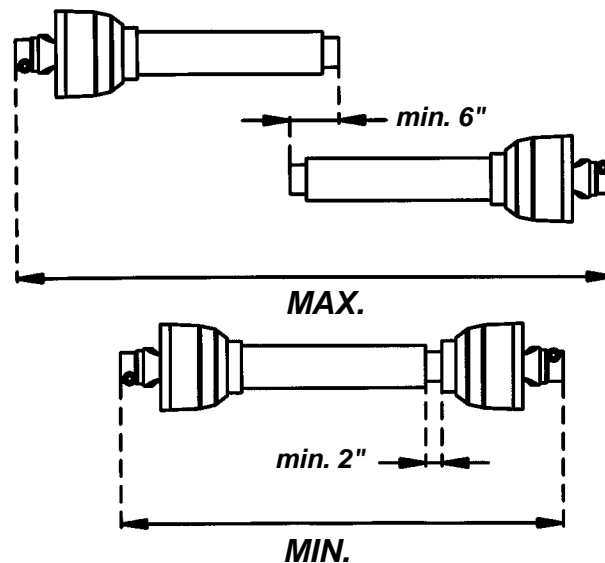


DANGER: Only use the original driveline supplied with this mower and always with the safety shielding. Carefully read and file away the driveline operator's manual supplied by the manufacturer. The following does not substitute the information found in the driveline manual.

IMPORTANT: Always check driveline length during initial setup and when connecting to a different tractor.

In the collapsed position the driveline should be approximately 2" from bottoming out to prevent possible damage to the tractor or implement. When the driveline is in the maximum extended position, the ideal minimum overlap of the two halves should be approximately 6" (see fig. 19).

Fig. 19



⁶ See Table 1, page 27.

If determined that the driveline is too long, follow these procedures to adjust the length:

1. Separate the two driveline halves. Connect one half to the tractor PTO and the other half to the mower.
2. Raise and lower the mower with the 3 point hitch to find the position where the driveline is shortest. Hold the half shafts side by side and mark the desired length on the outer female tube guard leaving a 1½" gap between the end of the guard tube and bell guard.
3. Cut off both guard tubes the same amount as marked in step 2.
4. Shorten both drive tubes the same amount as guard tubes.
5. De-burr and clean filings from drive tubes and apply grease to outside of inner telescoping tube.
6. Reassemble the driveline halves and connect to tractor and mower. Raise and lower mower again to be sure driveline does not bottom out in its shortest position and has a minimum overlap of 6" in the longest position.
7. Install both driveline safety chains. One should be hooked in a hole on the outer driveline yoke shield and to the tractor to restrict outer shield rotation. The second one should be hooked in a hole on the inner driveline yoke shield and to the implement to restrict inner shield rotation.

If determined that the driveline is too short for your tractor, contact your local dealer.



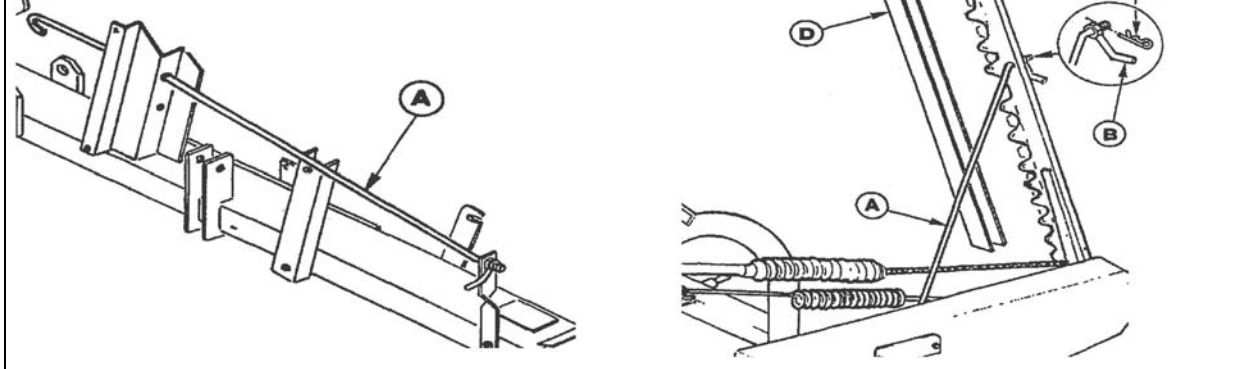
CAUTION: Always work with the driveline as straight as possible. This will prolong its life and that of its components. It is advised not to work at an angle greater than 15 degrees.

4.04 - Transport

Before transporting:







1. Adjust and fix the tie-rods of the side lifting arms of the tractor.
2. Lift the cutting bar.
3. Once sickle bar mower blade is in vertical position block using blade attachment rod (A) (**see fig. 20**) which was previously removed. Fasten blade attachment rod (A) with handle (B), insert pin (C), and cover blade with protection guard cover (D) (**see fig. 20**).
4. On BSB-006 and BSB-007 models, place the release support in locked position (**see fig. 12**).
5. Lift implement.
6. Always select a safe ground speed that is appropriate for the terrain. Beware of traffic on public roads. Install a SMV (Slow Moving Vehicle) sign when traveling on roads or streets. Reduce ground speed when turning and take care that the mower does not strike obstacles such as trees, fences or buildings.

IMPORTANT: On BSB-006 and BSB-007 models, remember to turn release support upwards before raising mower and before road transport (**see fig. 12**).

Fig. 20 - Transport position.

CAUTION: Make sure PTO is disengaged and blades have come to a complete stop before raising mower to full transport position. Do not tow tractor and mower behind other vehicles. Use a properly equipped trailer with heavy tie-downs for towing operations.

TABLE 1 - TORQUE SPECIFICATIONS

Metric (ISO) treaded bolts head marking	 Class 5.8	 Class 8.8	 Class 10.9	Inch (SAE) treaded bolts head marking	 Grade 2	 Grade 5	 Grade 8	Bolt size		Thread		N.m		ft-lb	
								mm	mm	inch	inch	ft-lb	ft-lb	ft-lb	ft-lb
M5	0.8	4	3	6	4	9	7	1/4"	20	7	5	11	8	16	12
M6	1	6	4	10	7	15	11	1/4"	28	8	6	13	10	19	14
M8	1.25	16	12	25	18	36	27	5/16"	18	15	11	24	17	33	25
M8	1	17	13	26	19	38	28	5/16"	24	17	13	26	19	37	27
M10	1.5	31	23	48	35	71	52	3/8"	16	27	20	42	31	59	44
M10	1.25	33	24	51	38	75	55	3/8"	24	31	23	47	35	67	49
M10	1	35	26	53	39	78	58	7/16"	14	43	32	67	49	95	70
M12	1.75	54	40	84	62	123	91	7/16"	20	48	36	75	55	106	78
M12	1.5	56	41	87	64	128	94	1/2"	13	66	48	102	75	144	106
M12	1.25	59	44	90	66	133	98	1/2"	20	75	55	115	85	163	120
M14	2	84	62	133	98	195	144	9/16"	12	95	70	147	109	208	154
M14	1.5	94	69	142	105	209	154	9/16"	18	106	79	164	121	232	171
M16	2	131	97	206	152	302	223	5/8"	11	132	97	203	150	287	212
M16	1.5	141	104	218	161	320	236	5/8"	18	149	110	230	170	325	240
M18	2.5	181	133	295	218	421	310	3/4"	10	233	172	361	266	509	376
M18	2	196	145	311	229	443	327	3/4"	16	261	192	403	297	569	420
M18	1.5	203	150	327	241	465	343	7/8"	9	226	167	582	430	822	606
M20	2.5	256	189	415	306	592	437	7/8"	14	249	184	642	473	906	668
M20	1.5	288	212	454	335	646	476	1"	8	339	250	873	644	1232	909
M22	2.5	344	254	567	418	807	595	1"	12	371	273	955	704	1348	995
M22	1.5	381	281	613	452	873	644	1-1/8"	7	480	354	1077	794	1746	1288
M24	3	444	327	714	526	1017	750	1-1/8"	12	539	397	1208	891	1958	1445
M24	2	488	360	769	567	1095	808	1-1/4"	7	677	500	1519	1120	2463	1817
M27	3	656	484	1050	774	1496	1103	1-1/4"	12	750	553	1682	1241	2728	2012
M27	2	719	530	1119	825	1594	1176	1-3/8"	6	888	655	1992	1469	3230	2382
M30	3.5	906	668	1420	1047	2033	1499	1-3/8"	12	1011	746	2268	1673	3677	2712
M30	2	1000	738	1600	1180	2250	1659	1-1/2"	6	1179	869	2643	1949	4286	3161
M36	4	1534	1131	2482	1830	3535	2607	1-1/2"	12	1326	978	2974	2194	4823	3557

When using lock washers with nuts, increase torque values by 5%.

TABLE 2 - SICKLE BAR MOWERS - TECHNICAL FEATURES

Series BSB sickle bar mowers, for tractors up to 75 HP, 3 point hitch cat. 1 & 2.							
Model	HP	Working width	Weight lb.	Lift	Max. working speed	PTO (rpm)	Driveline 1 3/8"
BSB-005	15-35	5'	430	Hydraulic	6.5 mph	540	ASAE cat. 1
BSB-006	25-75	6'	496	Hydraulic	6.5 mph	540	ASAE cat. 4
BSB-007	25-75	7'	530	Hydraulic	6.5 mph	540	ASAE cat. 4

5 - REPAIR PROCEDURES



CAUTION: All repair procedures must be done by authorized dealerships. It is not recommended that untrained individuals perform any repair work.

5.01 - Blade and Teeth Replacement



DANGER: Avoid injury from blade. Always replace safety shield on cutting bar when mower is not in use.

Blade section replacement

Before replacing blade section let sickle bar mower idle in order to eliminate any residues and facilitate extraction.

1. With the implement resting on the ground lower the cutting bar so that it is laying flat on the ground.
2. Disengage PTO, turn tractor off, remove ignition key, set parking brake and insert foot support stand in resting position (**see fig. 10**).
3. Loosen and remove nut (A) and bushing (B) (**see fig. 21**).
4. Use a cable to facilitate sliding out of blade section (**see fig. 21**).
5. When mounting new blade make sure to lubricate well all cutting knives with a good quality oil.
6. Grease all parts indicated under maintenance.

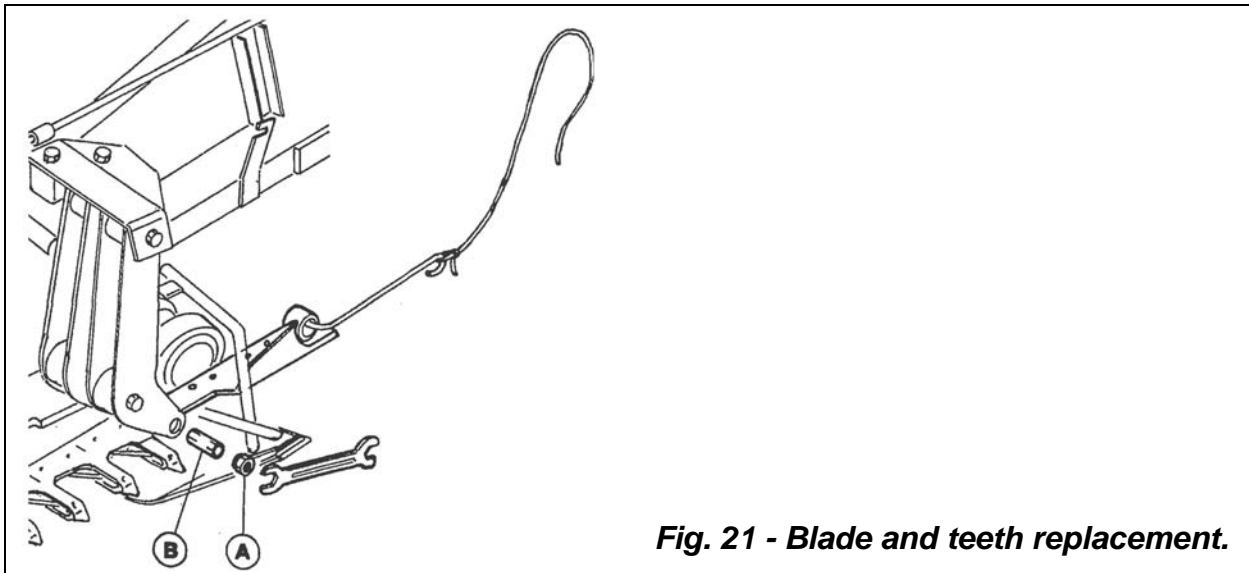


Fig. 21 - Blade and teeth replacement.

Individual blade replacement

1. Follow instructions 1 to 3 of "blade section replacement" above.
2. From the blade side of the section, drill into fastening rivets using a 5/16" bit. Drill only through rivet material.
3. Using a punch, clear the mounting hole of any remaining rivet material.
4. Install new blade, fasten with 6x12 rivets.

5.02 - Suggested Spare Parts

It is suggested that the following spare parts be kept on hand for the implement at all times to prevent a minor problem from delaying work.

Description	Quantity
Complete blade section	1
Conic bolt, bushing and nut	2

5.03 - Storage

After seasonal use it is important to perform the following for prolonged storage:

1. Wash the implement carefully.
2. Inspect the implement and replace worn or damaged parts.
3. Replace safety shield on cutting bar.
4. Install blade attachment rod and secure it with the clip pin.
5. Tighten all hardware.
6. Grease all areas indicated under Maintenance⁷.
7. When placing machine in storage, lower the support stand and secure it with the lock pin before lowering the unit to the ground.
8. Cover the implement from the elements in order to have it in perfect condition for the start of the next season.



WARNING: Be sure to store the implement on a hard level surface, with the safety shield installed on the cutting bar, away from people especially children.

⁷ See Chapter 4 - Maintenance.

6 - TROUBLESHOOTING



WARNING: Be sure tractor engine is off, parking brake is locked, and key is removed before making any adjustments.

PROBLEM	POSSIBLE CAUSE	SOLUTION
Cutting bar raises too rapidly.	Improper adjustment of the cylinder flow valve (A) (see fig. 13).	From tractor seat, turn valve (A) in a clockwise direction. This will reduce oil flow and reduce upward speed.
Cutting bar lowers too rapidly.	Improper adjustment of the cylinder flow valve (B) (see fig. 13).	From tractor seat, turn valve (B) in a counterclockwise direction. This will reduce oil flow and reduce downward speed.
Material becomes entangled on the bar.	Too much clearance between cutting blade teeth and upper blade guide.	Check to make sure there is no more than 1 mm. clearance between blade teeth and upper blade guide. Add or remove shims accordingly.
Teeth bar or blade section often fails.	Too little clearance between blade teeth and upper blade guide can create excessive sliding friction on the blade that may result in failures.	Check to make sure there is at least 1 mm. clearance between blade teeth and upper blade guide. Add or remove shims accordingly.
Conic bolts on cutting bar come loose.	Bolts not properly torqued.	Torque conic bolts to 59 ft-lb. (80 N.m).
Conic bolts on cutting bar shear.	Bolts not properly torqued. Loose belts cause blade teeth to jam and conic bolt to fail.	Torque conic bolts to 59 ft-lb. (80 N.m). Tighten belts so there is less than 1" slack.

7 - PRE-DELIVERY CHECKLIST

To the dealer: Inspect the machine thoroughly after assembly to assure it is functioning properly before delivering it to the customer. The following checklist is a reminder of points to cover. Check off each item as it is found satisfactory or after proper adjustment is made.

- Guards and shield properly fastened.
- Lubrication of grease fittings.
- All hardware properly tightened.
- Belts are properly tightened.
- All decals properly located and readable (**see fig. 4**).
- Blade section and teeth bar properly installed.
- Overall condition (touch up scratches, clean and polish).
- Test run, check for excessive vibration or overheating of bearings.
- Operator's Manual.

Review the Operator's Manual with the customer. Explain the following:

- Warranty.
- Safe operation and service.
- Correct machine installation and operation.
- Daily and periodic lubrication, maintenance and inspections.
- Troubleshooting.
- Operational procedures and storage.
- Parts and service.
- Fill out the Pre-Delivery Checklist and Warranty Registration form.
- Give customer the Operator's Manual and encourage the customer to read the manual carefully.

IMPORTANT: Warranty is not valid unless Pre-Delivery Checklist and Warranty Registration Form in operator's manual is completed in detail and mailed to the Company.

Model Number: _____

Serial Number: _____

Delivery Date: _____

Dealer's Signature: _____

8 - WARRANTY

BEFCO's responsibility will be limited to substitution of the acknowledged defective merchandise to the same place of delivery as the previous one was supplied.

1. LIMITED WARRANTY

BEFCO, Inc. herein referred to as the Company, warrants its machines and related accessories, hereafter referred to as the Machine, to be free from defects in material and workmanship, for a period of twelve (12) months from the date of invoice to the first registered owner; this limited warranty does not apply to common wear items and excludes belts, shear pins, oil, grease, tires, tubes, hydraulic hoses, knives and PTO shafts.

Labor will be reimbursed at \$40.00 per hour based on BEFCO's time schedule.

Cost of transport to the servicing dealer is the responsibility of the customer.

Warranty coverage shall not be transferable from the first owner to any subsequent owner.

2. DISCLAIMER OF ALL OTHER WARRANTIES AND REMEDIES

Neither the Company nor any company affiliated with the Company makes any warranties, representations or promises, expressed or implied, as to the quality, performance or application of its products other than those set forth herein and does not make any implied warranty of merchantability or fitness.

The only remedies the purchaser has in connection with the breach, or performance of any warranty on the Company's Machine are those set forth herein. In no event will the dealer, the Company, or any company affiliated with the Company, be liable for:

- a. Injuries or damages of any kind or nature, direct, consequential or contingent to person or property.
- b. Any expenses incurred by the owner to repair, replace or rework any allegedly defective item.
- c. Any loss, cost, forfeiture or damages (including loss of profits; loss of crops; loss because of delay in field operations; any expenses or loss incurred for labor, supplies, substitute machine rental; liabilities of the owner to its customers or third persons; and all other consequential damages, losses, liabilities or damages for any other reasons) whether direct or indirect, and whether or not resulting from or contributed to by the default or negligence of the Company, its agents, employees and subcontractors which might be claimed as a result of the use or failure of the equipment delivered.

The Company's liability based on this limited warranty or any other applicable laws shall be limited to replacement or refund of the purchase price of the product.

The limited warranty extended herein gives you specific rights and you may also have other rights which vary from state to state. Neither the dealer nor the Company personnel has the authority to make any representation or to modify the terms and limitations of this warranty in any way.

Other than the limited warranty extended hereby there is no other expressed warranty in connection with the design, safety or use of any of the Company's products except as to title. All implied warranties are expressly disclaimed pursuant to the terms of this warranty.

3. CUSTOM WORK

If the Machine is used for commercial purposes such as custom work, the period warranted for the Machine is limited to six (6) months from the date of delivery to the first registered owner and does not cover any labor charges incurred.

4. RENTAL

If the Machine is used for rental purposes the period warranted for the Machine is limited to thirty (30) days from the date of delivery to the first registered owner and does not cover any labor charges incurred.

5. REGISTRATION

In order to qualify for coverage on this limited warranty, the product and name of the original purchaser must be registered with the Company by a completed Machine Pre-Delivery Checklist and Warranty Registration along with a copy of the dealer's invoice to the first registered owner to the Company within fourteen (14) days after the date of delivery to the original purchaser.

6. WARRANTY SERVICE

Warranty Service must be performed by a dealer authorized by BEFCO. If the warranty service requested is approved, the owner shall pay only for labor beyond the rate allowed, for overtime labor, and for any mileage charge for transporting the equipment to and from the dealer's shop. It is assumed that the dealer has the appropriate general and special tools to service the machine. Time required for replacement of knives, oil, grease and to remove excessive dirt from the Machine is not subject to reimbursement by the Company. The owner is required to clean the Machine before presenting it to the dealer for service work. The Machine must be delivered within thirty (30) days after failure date by the owner to the dealer to be eligible for warranty consideration.

7. UNAPPROVED SERVICE OR MODIFICATION

All obligations of the Company under this limited warranty shall be terminated if:

- a. Proper service and operation instructions as outlined in the Operator's Manual and on the instruction sticker on the Machine, are not followed.
- b. The Machine is modified or altered in any way not approved by the Company.
- c. The Company does not receive a copy of the dealer's invoice to the first registered owner within fourteen (14) days from the date of delivery.
- d. The Company has not been paid in full, by the dealer, for the Machine.

8. ACCIDENTS AND NORMAL MAINTENANCE

This limited warranty covers defective material and workmanship. It does not cover depreciation or damage caused by normal wear, accidents, improper maintenance, improper protection or improper use. The costs of normal maintenance or repairs for accidents or improper use, and related labor will be borne by the owner.

9. REPLACEMENT PARTS

BEFCO, Inc. warrants replacement parts to be free from defect in material and workmanship for a period of thirty (30) days from the date of delivery to the original purchaser.

WARRANTY REGISTRATION

BEFCO, Inc.
P.O. Box 6036
Rocky Mount, NC 27802-6036

Tel: (252) 977.9920 - Fax: (252) 977.9718

Dealer _____ Acct. # _____	Retail Customer _____
Street _____ Country _____	Street _____
Town _____ State _____ Zip _____	Town _____ State _____ Zip _____
Date of delivery _____ Invoice # _____	Phone _____
Model # _____ Serial # _____	
<p>Pre-Delivery Checklist:</p> <p><input type="checkbox"/> Greased fittings.</p> <p><input type="checkbox"/> Safety guards in place.</p> <p><input type="checkbox"/> All hardware tight.</p> <p><input type="checkbox"/> Bolts torqued correctly.</p> <p><input type="checkbox"/> Attached unit to tractor. Yes/No.</p> <p><input type="checkbox"/> Field adjusted. Yes/No.</p> <p><input type="checkbox"/> Test run. Dry/Infield.</p> <p><input type="checkbox"/> Safety decals.</p> <p><input type="checkbox"/> Operator's Manual.</p> <p>The machine described above, had been prepared for delivery according to the Pre-Delivery Checklist and the Customer has been instructed in its care and operation and the condition of warranty.</p>	<p>Tractor make: _____</p> <p>Model: _____; HP _____</p> <p>Type of operation: Private homeowner, Landscaping, Commercial maintenance, Golf Course, Municipality, Turf Farm, others: _____</p> <p>Approximate number of acres machine will be used on annually: _____</p> <p>I hereby acknowledge that: I have received and accepted delivery of the machine described. The equipment was checked thoroughly for loose or missing parts and has been adjusted in accordance with the Pre-Delivery Checklist. I have read and understand the nature and extent of the warranty and understand clearly that there were and are no other representations of warranties either expressed or implied, made by anyone. I have been advised on proper operation, maintenance and lubrication procedure of this equipment. I have been instructed on and do understand the application, limitation and capacities this equipment was designed and recommended for, all as described in the Operator's Manual and literature published by the Company.</p>
Inspected by: _____	
Date: _____	Date: _____
Dealer's Signature: _____	Customer's Signature: _____

This registration along with a copy of the invoice must be sent to BEFCO, Inc. within 14 days of date of purchase.

Sender:

Fold here

*Place stamp
here*

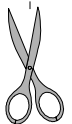
BEFCO, Inc.

Warranty Department

P.O. Box 6036

Rocky Mount, NC 27802-6036

Cut along this line

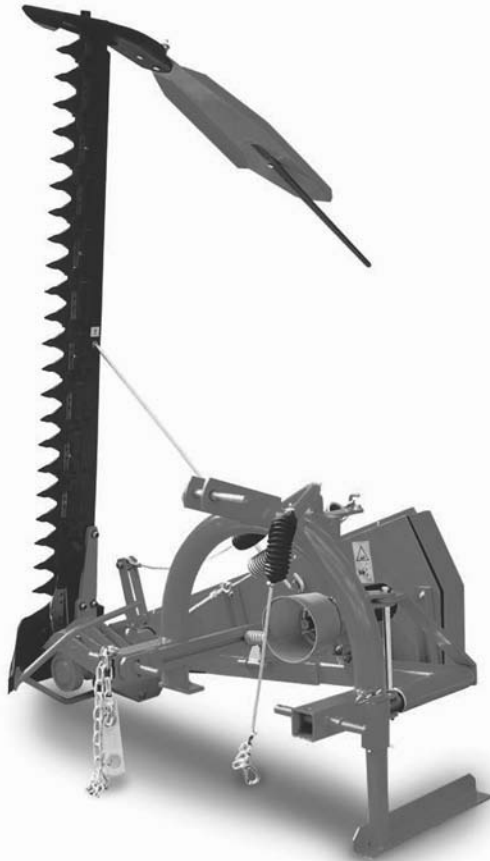


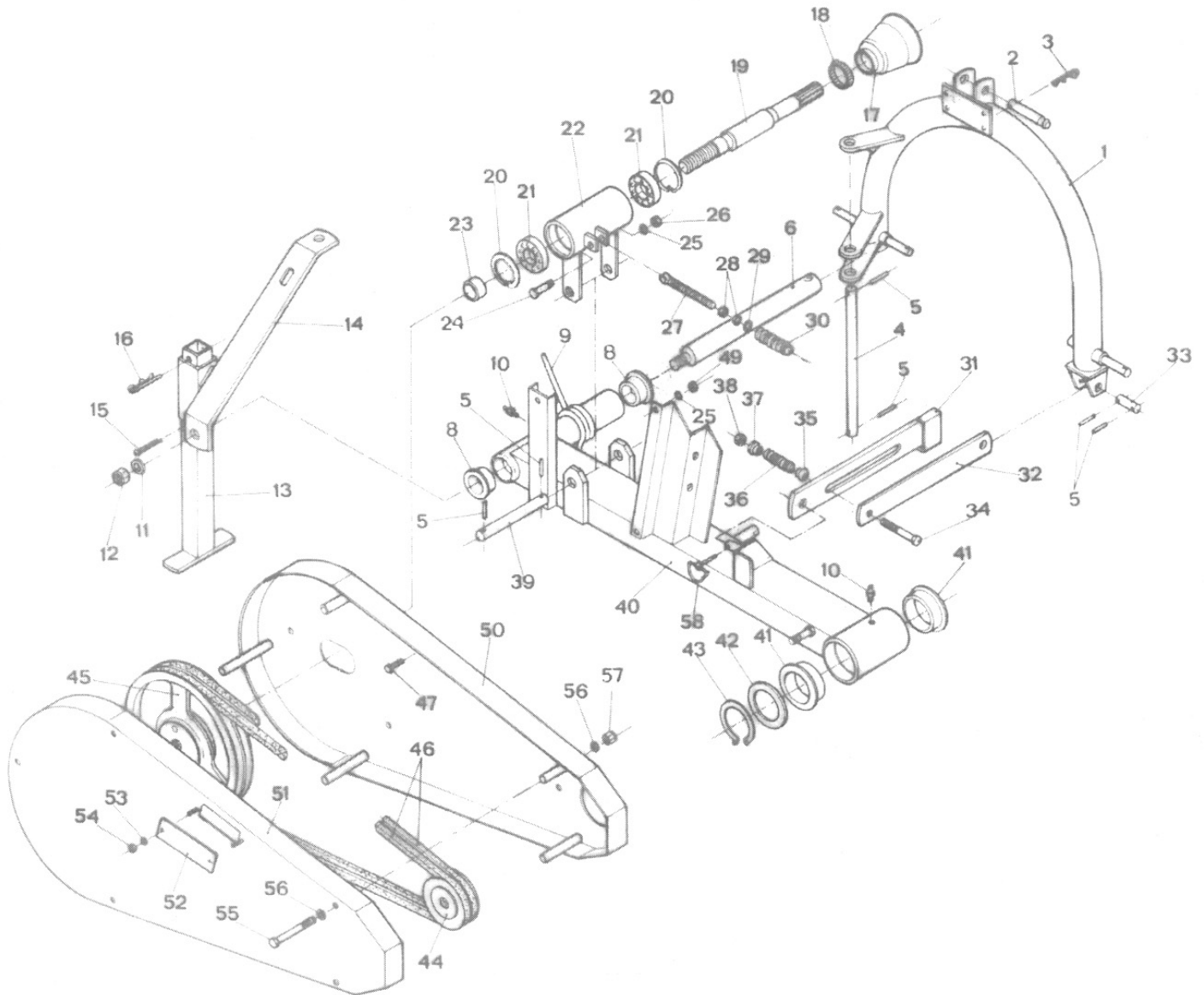
BEFCO®

Parts Manual

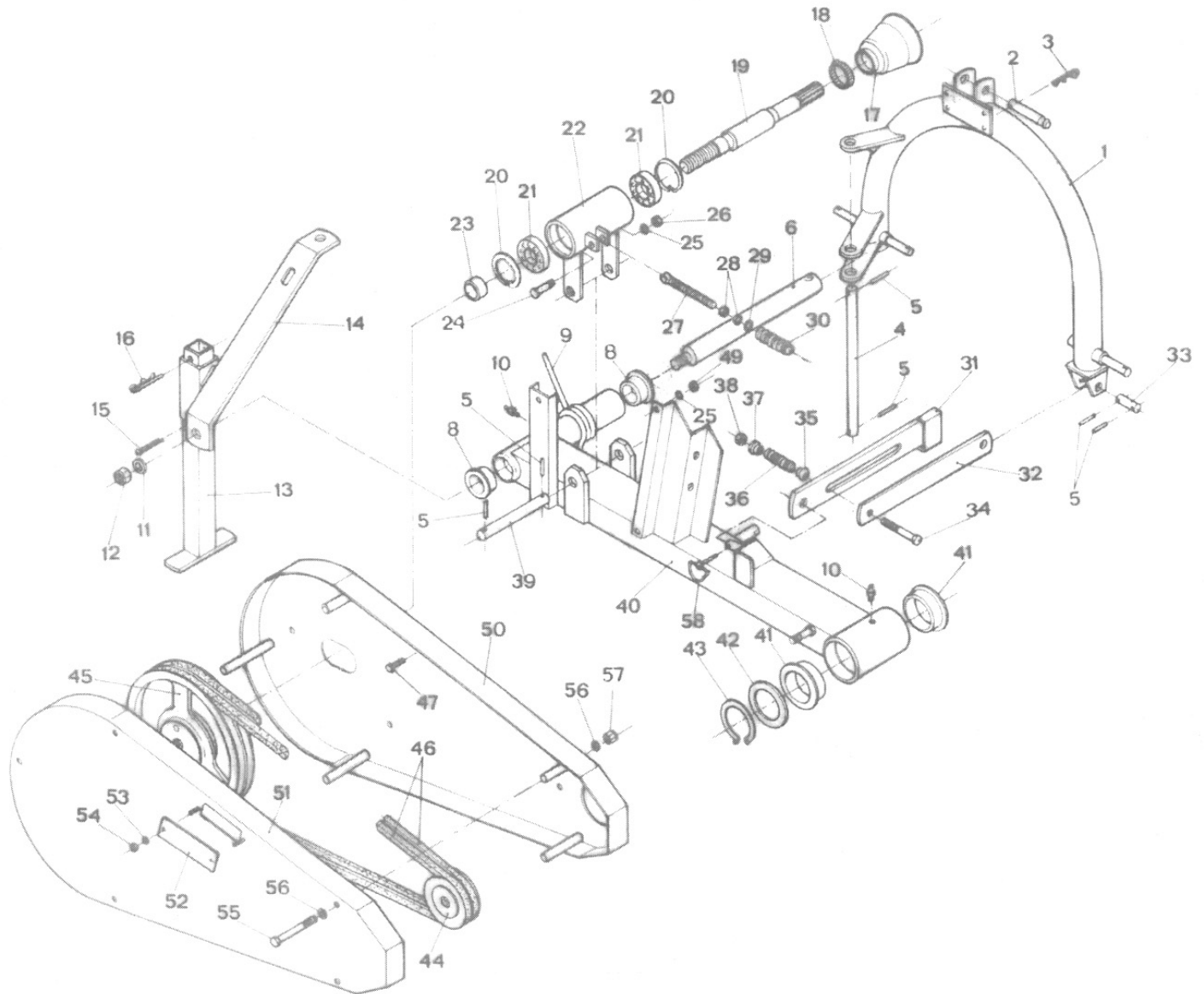
SICKLE BAR MOWERS

BSB-005, BSB-006, BSB-007

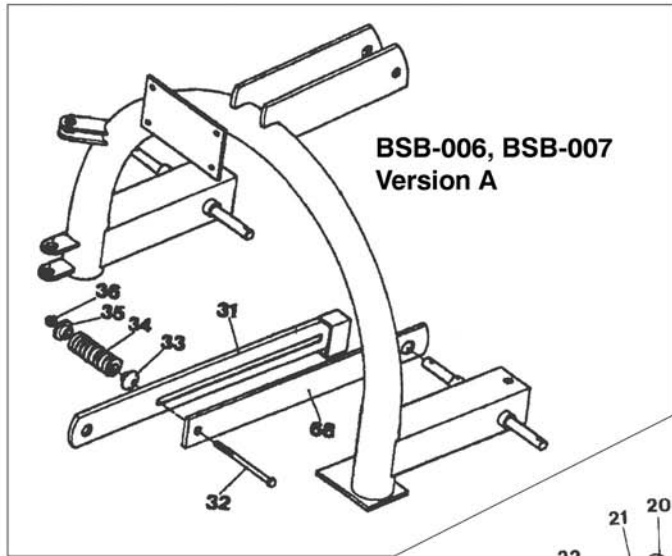




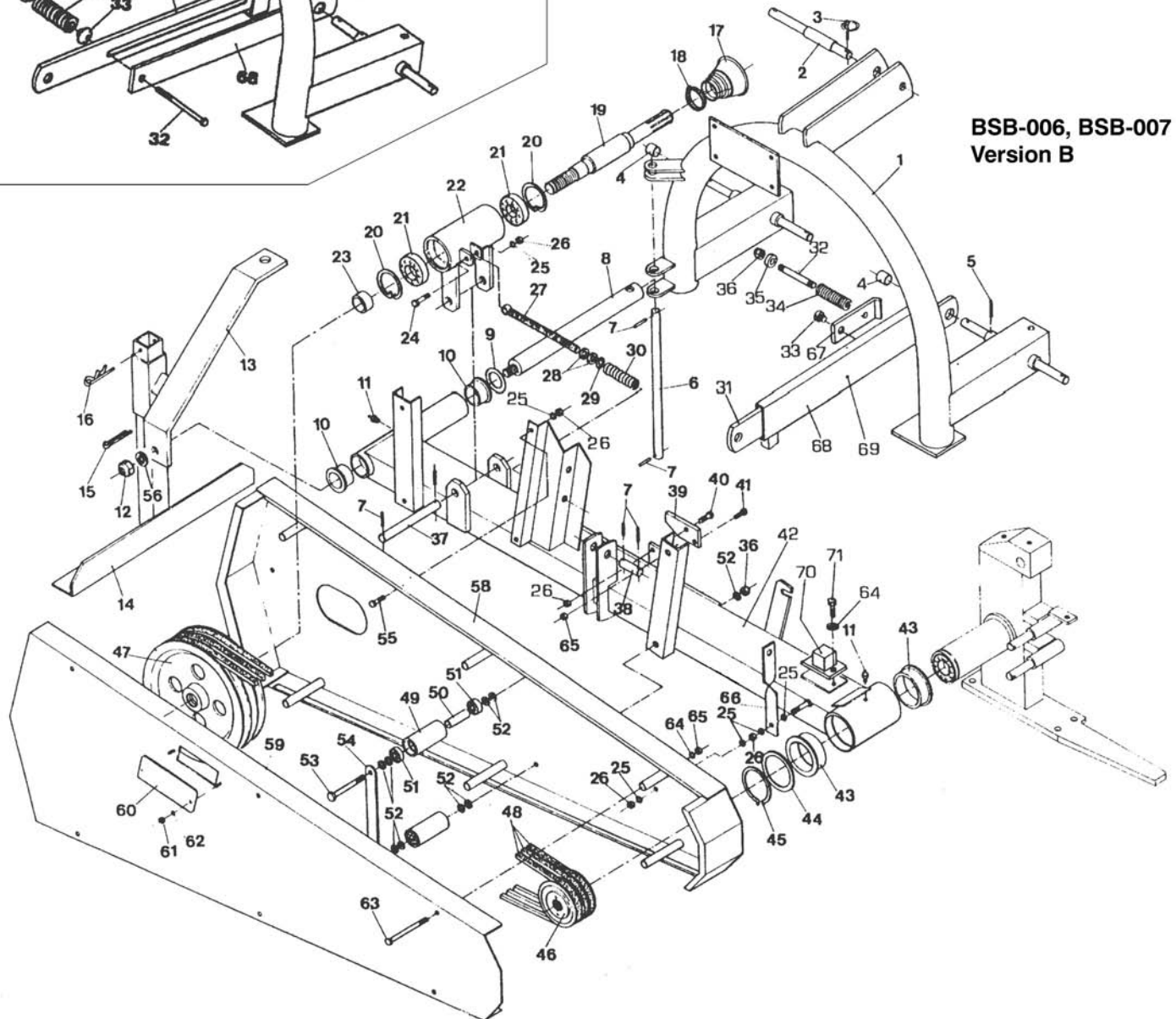
Ref.	Part #	Description	Qty.
1	18031346	Three point hitch arch; BSB-005	1
2	12880871	Three point hitch pin; BSB-005	1
3	004-1291	"R" clip Ø5	1
4	18031347	Pin Ø20x325; BSB-005	1
5	000-6605	Roll pin Ø6x30	6
6	12880832	Frame shaft Ø40	1
8	9250002	Bushing Ø40x60	2
9	11011101	Spring Ø95; BSB-005	1
10	3090101	Grease fitting M08-1.00	2
11	005-0049	Washer, flat Ø18 Z	1
12	009-1245	Nut ES M18-1.50 Z TN	1
13	18031348	Foot stand; BSB-005	1
14	18031349	Foot support bracket; BSB-005	1
15	3040117	Cotter pin Ø8x80	1
16	004-1291	"R" clip Ø5	1
17	9070104	Protection guard	1
18	4010702	Clamp 80-100	1
19	12880826	PTO shaft	1
20	002-5329	Snap ring, inner Ø72	2
21	503-197B	Bearing 6207 2RS	2
22	12880828	PTO support	1
23	12880808	Spacer Ø35	1
24	001-4477	Bolt HH M10-1.50x60 C8.8 Z P	1
25	000-2034	Washer, flat Ø10 Z	3
26	009-0150	Nut HH M10-1.50 C6 Z MD	1
27	18031307	Belt stretcher tie rod	1
28	000-3124	Nut HH M16-2.00 C6 Z MD	2
29	000-8568	Washer, flat Ø16	1
30	11010620	Spring Ø34x91	1
31	18031350	Safety release w/slot; BSB-005	1
32	18031351	Tie rod bracket; BSB-005	1
33	12880867	Pin Ø20x82; BSB-005	1
34	3011639	Bolt SP M12-1.75x150 C8.8 Z P	1
35	12880807	Release cone	1
36	11010621	Spring Ø40x96	1
37	12880806	Spring washer Ø40	1
38	009-4139	Nut ES M12-1.75 Z TN	1
39	12880834	Pin Ø20x160	1
40	18031352	Frame, complete; BSB-005	1
41	9250003	Bushing Ø80x100	2
42	1011546	Washer Ø80x97x2	1
43	3120133	Snap ring, outer Ø80	1
44	2030115	Drive pulley 120x2; BSB-005	1
45	2030114	Drive pulley 300x2; BSB-005	1
46	503-958B	Belt B75; BSB-005	2
47	000-6349	Bolt HH M10-1.50x20 C8.8 Z F	2
49	001-5237	Nut ES M10-1.50 Z TN	2
50	18031353	Protection guard, inner; BSB-005	1
51	18031354	Protection guard, outer; BSB-005	1
52	1011427	Control cover	1
53	005-0166	Washer, flat Ø06 Z	2



Ref.	Part #	Description	Qty.
54	3020213	Nut ES M06-1.00 Z TN	2
55	3010275	Bolt HH M08-1.25x120 C8.8 Z P	5
56	001-5230	Washer, flat Ø08 Z	10
57	3020209	Nut ES M08-1.25 Z TN	5

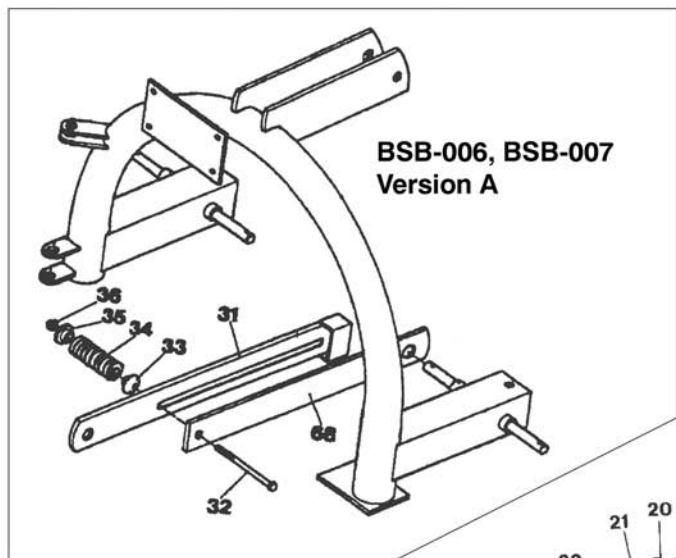


BSB-006, BSB-007
Version A

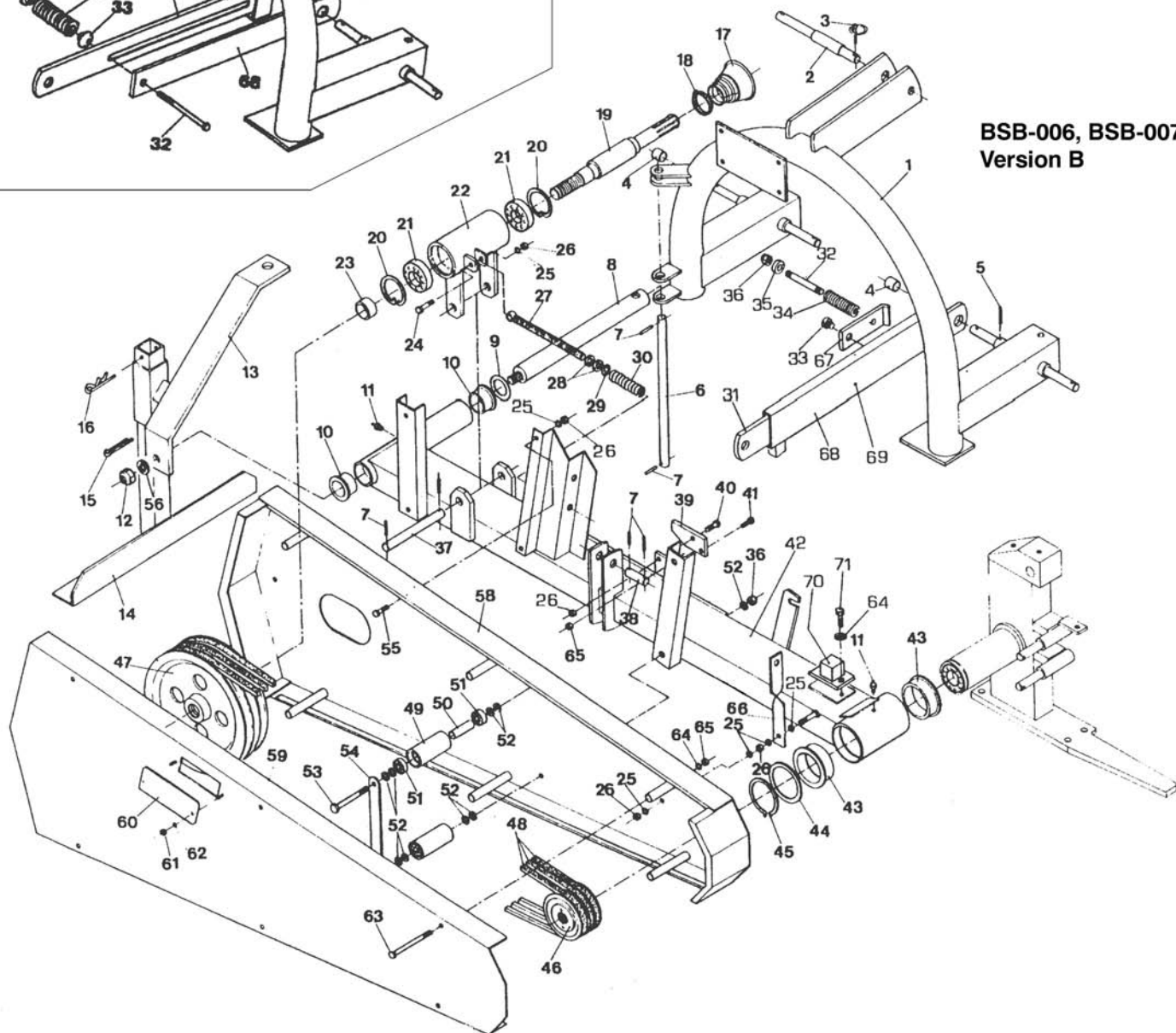


BSB-006, BSB-007
Version B

Ref.	Part #	Description	Qty.
1	18031303	Three point hitch arch; BSB-006, BSB-007	1
2	12310115	Three point hitch pin; BSB-006, BSB-007	1
3	001-8266	Lynch pin Ø11x45	1
4	12920101	Bushing for pin	2
5	004-6521	Roll pin Ø6x60	1
6	18031304	Pin; BSB-006, BSB-007	1
7	000-6605	Roll pin Ø6x30	6
8	12880832	Frame shaft Ø40	1
9	503-390B	Shim Ø40x50x0.5	-
10	9250002	Bushing Ø40x60	2
11	3090101	Grease fitting M08-1.00	2
12	009-1245	Nut ES M18-1.50 Z TN	1
13	18031305	Foot support bracket; BSB-006, BSB-007	1
14	18031306	Foot stand; BSB-006, BSB-007	1
15	3040117	Cotter pin Ø8x80	1
16	004-1291	"R" clip Ø5	1
17	9070104	Protection guard	1
18	4010702	Clamp 80-100	1
19	12880826	PTO shaft	1
20	002-5329	Snap ring, inner Ø72	2
21	503-197B	Bearing 6207 2RS	2
22	12880828	PTO support	1
23	12880808	Spacer Ø35	1
24	001-4477	Bolt HH M10-1.50x60 C8.8 Z P	1
25	000-2034	Washer, flat Ø10 Z	7
26	009-0150	Nut HH M10-1.50 C6 Z MD	6
27	18031307	Belt stretcher tie rod	1
28	000-3124	Nut HH M16-2.00 C6 Z MD	2
29	000-8568	Washer, flat Ø16	1
30	11010620	Spring Ø34x91	1
31	18031308	Safety release w/slot; BSB-006, BSB-007 (ver. A)	1
	18031370	Safety release; BSB-006, BSB-007 (ver. B)	1
32	3011639	Bolt SP M12-1.75x150 C8.8 Z P (ver. A)	1
	12880891	Fastening tie rod (ver. B)	1
33	12880807	Release cone (ver. A)	1
	12880892	Pin Ø20x30 (ver. B)	1
34	11010621	Spring Ø40x96 (ver. A)	1
	11011004	Spring disc Ø34x16.3x2 (ver. B)	1
35	12880806	Washer Ø40 (ver. A)	1
	12880893	Washer Ø45 (ver. B)	1
36	009-4139	Nut ES M12-1.75 Z TN	5
37	12880834	Support pin Ø20	1
38	12880833	Release pin Ø20	1
39	18031309	Release support	1
40	009-1281	Bolt HH M10-1.50x35 C8.8 Z F	1
41	001-5220	Bolt HH M08-1.25x35 C8.8 Z F	1
42	12880827	Frame, complete; BSB-006, BSB-007	1
43	9250003	Bushing Ø80x100	2
44	1011546	Washer Ø80x97x2	1
45	3120133	Snap ring, outer Ø80	1

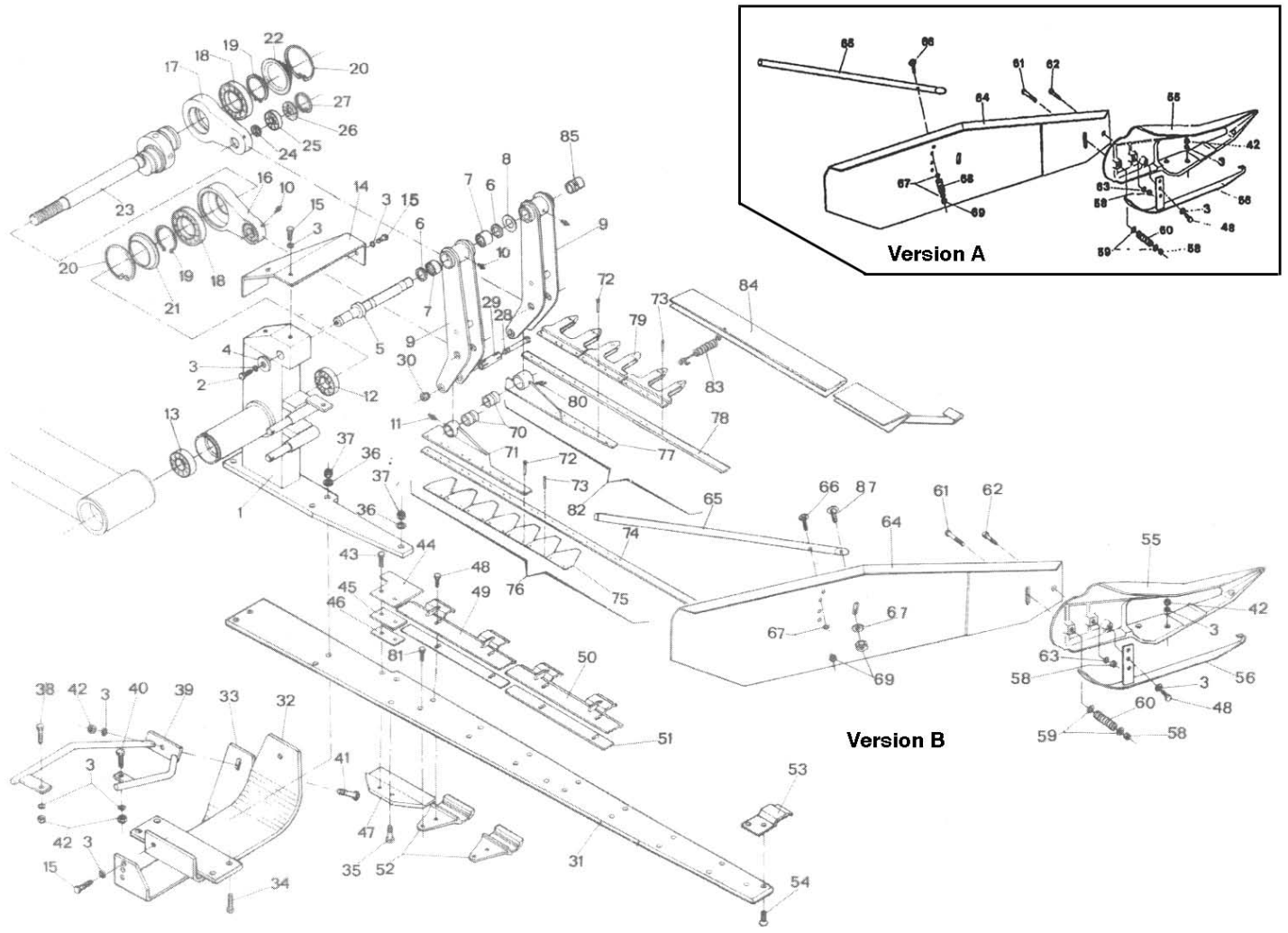


BSB-006, BSB-007
Version A



BSB-006, BSB-007
Version B

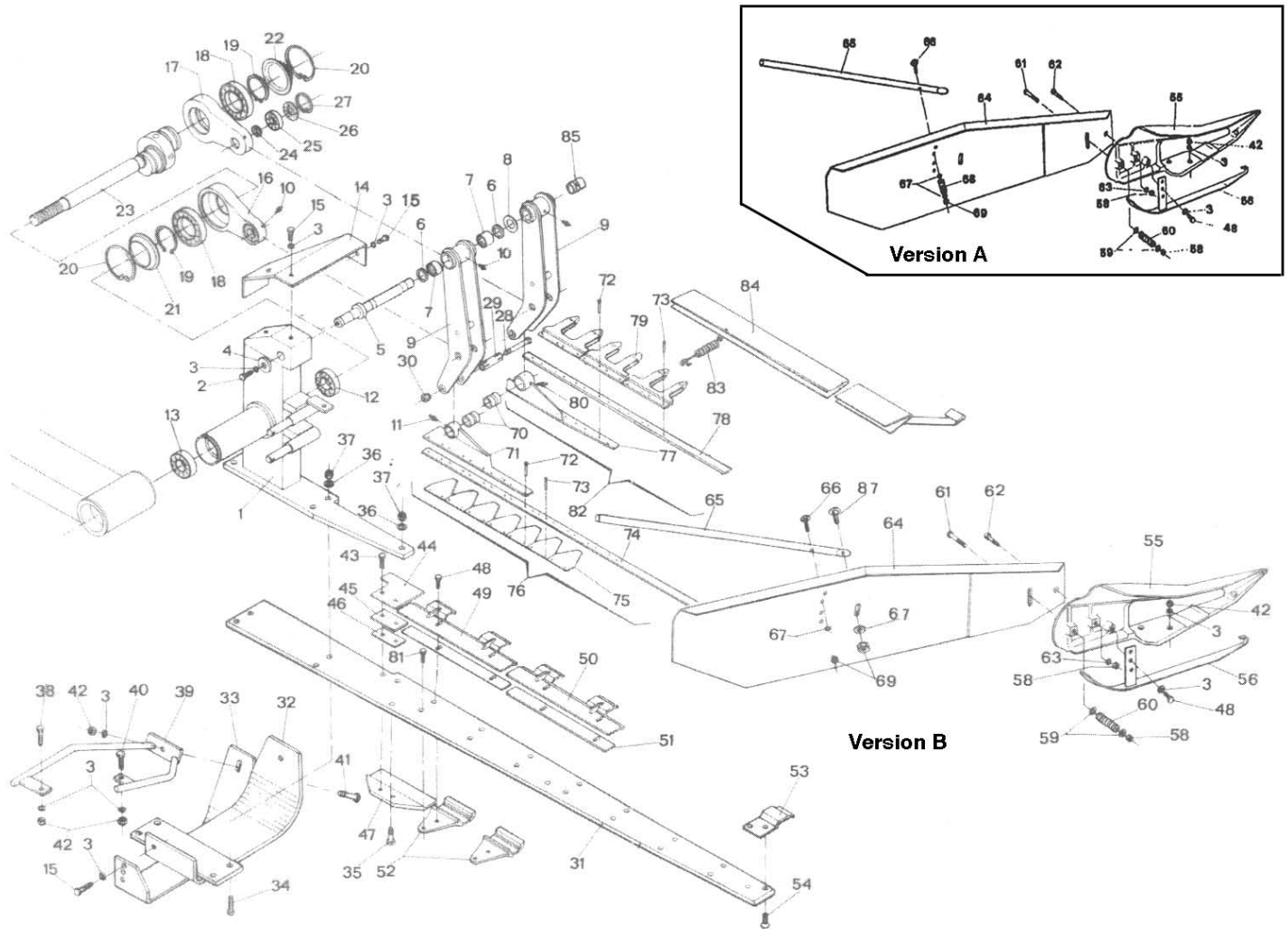
Ref.	Part #	Description	Qty.
46	18031310	Drive pulley 120x3; BSB-006, BSB-007	1
47	18031311	Drive pulley 300x3; BSB-006, BSB-007	1
48	8020539	Belt SPB 2580; BSB-006, BSB-007	3
49	12880836	Belt guide roller	2
50	18031312	Roller spacer	2
51	12240156	Bearing 6201 2RS	4
52	000-2265	Washer, flat Ø12x24x2.5 Z	12
53	009-1301	Bolt HH M12-1.75x120 C8.8 Z P	2
54	18031313	Rollers support	1
55	000-6349	Bolt HH M10-1.50x20 C8.8 Z F	2
56	005-0049	Washer, flat Ø18	1
58	18031314	Protection guard, inner; BSB-006, BSB-007	1
59	18031315	Protection guard, outer; BSB-006, BSB-007	1
60	1011427	Control cover	1
61	3020213	Nut ES M06-1.00 Z TN	2
62	005-0166	Washer, flat Ø06 Z	2
63	3010275	Bolt HH M08-1.25x120 C8.8 Z P	6
64	001-5230	Washer, flat Ø08 Z	8
65	3020209	Nut ES M08-1.25 Z TN	7
66	18031316	Tie rod bracket; BSB-006, BSB-007	1
67	18031371	Safety attachment; BSB-006, BSB-007 (ver. B)	1
68	18031317	Safety release; BSB-006, BSB-007 (ver. A)	1
	18031372	Sliding tie rod; BSB-006, BSB-007 (ver. B)	1
69	17310040	Safety release, complete; BSB-006, BSB-007	-
70	18031375	Stop; BSB-006, BSB-007	1
71	004-6454	Bolt HH M08-1.25x16 C8.8 Z F	2



Ref.	Part #	Description	Qty.
1	12880817	Support	1
2	000-1278	Bolt HH M10-1.50x30 C8.8 Z F	1
3	000-2034	Washer, flat Ø10 Z	10
4	12880810	Washer Ø10x40x8 Z	1
5	12880820	Arm attachment pin	1
6	12260029	Grommet G25x32x4	2
7	12070303	Bushing HK 2520	2
8	12280201	Fifth wheel AS 2542	1
9	12880818	Arm	2
10	3090101	Grease fitting M08-1.00	4
11	005-1129	Grease fitting M06-1.00	1
12	503-197B	Bearing 6207 2RS (35.72.17)	1
13	005-0212	Bearing 6306 2RS (30.72.19)	1
14	18031318	Cover	1
15	000-6349	Bolt M10-1.50x20 C8.8 Z F	3
16	12880821	Connector, inner	1
17	12880856	Connector, outer	1
18	008-9115	Bearing 6013 2RS	2
19	3120134	Snap ring, outer Ø65	2
20	000-1087	Snap ring, inner Ø100	2
21	1011565	Protection ring	1
22	1011564	Protection tap	1
23	18031319	Shaft	1
24	12260030	Grommet G20x28x4	1
25	024-0157	Bearing 1304	1
26	10011701	Connector gasket Ø18x52x3	1
27	3120111	Snap ring, inner Ø52	1
28	18031320	Conic bolt, SP M10-1.50x60 N P	2
29	18031321	Conic bushing Ø20	2
30	18031322	Conic nut, SP M10-1.50 N	2
31	18031384	Bar notched on end; BSB-005	1
	12880825	Bar; BSB-006 (ver. A) ⁸	1
	18031386	Bar notched on end; BSB-006 (ver. B)	1
	12880824	Bar; BSB-007 (ver. A) ⁹	1
	18031387	Bar notched on end; BSB-007 (ver. B)	1
32	12880873	Internal skid; BSB-005	1
	18031335	Internal skid; BSB-006, BSB-007	1
33	12880874	External skid; BSB-005	1
	12880823	External skid; BSB-006, BSB-007	1
34	3011640	Bolt HH M14-1.50x60 C8.8 Z P	4
35	3011668	Bolt HH M14-1.50x45 C8.8 Z P	-
36	11011003	Washer, conic Ø14	-
37	001-7106	Nut ES M14-1.50 Z TN	-
38	009-1281	Bolt HH M10-1.50x35 C8.8 Z F	1
39	18031323	Support protection; BSB-006, BSB-007	1
	18031366	Support protection; BSB-005	1
40	003-3176	Bolt HH M10-1.50x25 C8.8 Z F	1
41	002-6329	Bolt HH M10-1.50x45 C8.8 Z F	1

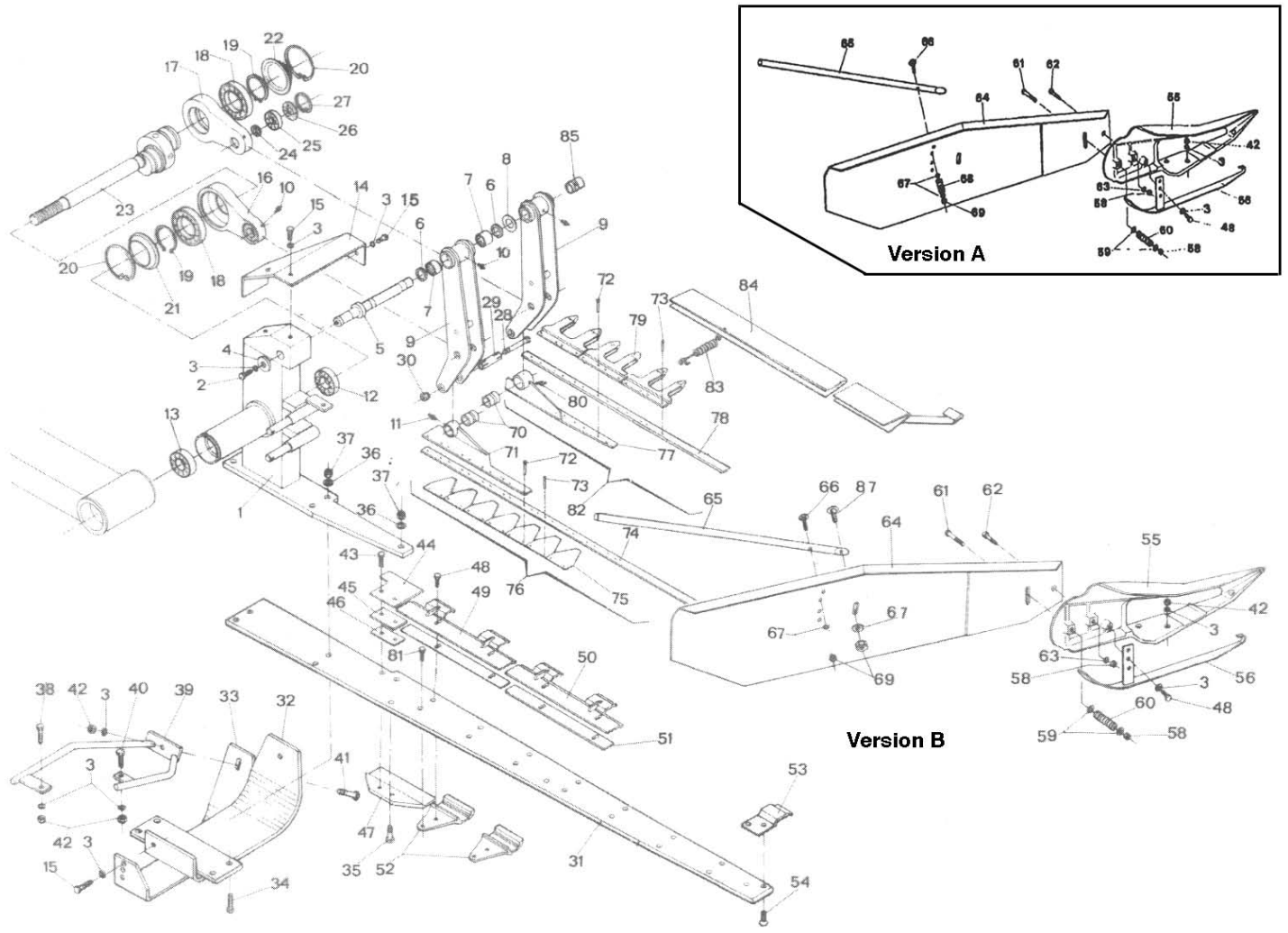
⁸ Part no longer available, should be replaced with part #18031386 and part #18031374.

⁹ Part no longer available, should be replaced with part #18031387 and part #18031374.

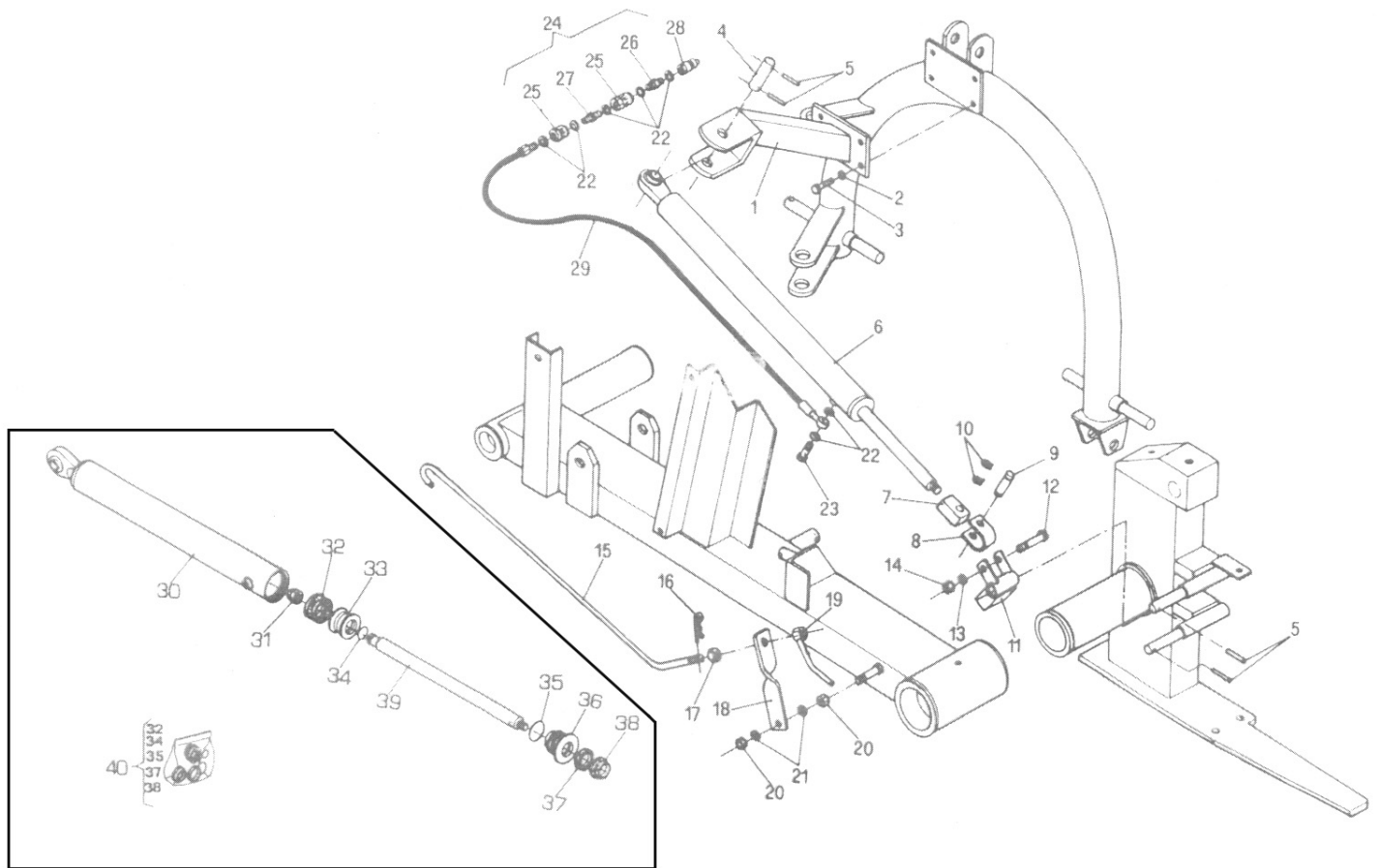


Ref.	Part #	Description	Qty.
42	001-5237	Nut ES M10-1.50 Z TN	5
43	501-925B	Bolt HH M10-1.50x50 C8.8 Z P	2
44	1011545	Internal guide, upper	1
45	18031326	Shim 12	1
46	1011562	Shim 30x60x1	-
47	18031327	Internal guide, lower	1
48	3010213	Bolt HH M10-1.50x40 C8.8 Z P	-
49	18031328	Blade guide, upper	1
50	18031329	Blade guide, upper	-
51	1011561	Guide shim 5/10	-
52	18031330	Blade guide, lower	-
53	18031331	Guide, external	1
54	3010910	Bolt CS M10-1.50x50 C10.9 Z F	2
55	18031324	External shoe (ver. A)	1
	18031374	External shoe (ver. B)	1
56	18031388	Lateral skid ¹⁰	1
58	009-4139	Nut ES M12-1.75 Z TN	2
59	007-6106	Washer, flat Ø12x36x3 Z	2
60	11010618	Spring Ø28x50	1
61	001-5122	Bolt HH M12-1.75x90 C8.8 Z P	1
62	3011244	Bolt HH M12-1.75x50 C8.8 Z P	1
63	000-2265	Washer, flat Ø12X24X2.5 Z	1
64	18031325	Lateral deflector	1
65	18031336	Deflector tube	1
66	3010123	Bolt CR M08-1.25x70 C4.6 Z (ver. A)	1
	501-623B	Bolt CR M08-1.25x40 C4.6 Z (ver. B)	1
67	001-4514	Washer, flat Ø08x24x2 Z	2
68	11010622	Spring Ø14x60 (ver. A)	1
69	3020209	Nut ES M08-1.25 Z TN	2
70	12880855	Bushing Ø20	2
71	12880847	Blade section head	1
72	3220101	Rivet 6x19	-
73	3220102	Rivet 6x12	-
74	12880877	Blade bar; BSB-005	1
	12880849	Blade bar; BSB-006	1
	12880850	Blade bar; BSB-007	1
75	12880853	Blade section	-
76	12880857	Complete blade 20 sections; BSB-005	1
	12880844	Complete blade 24 sections; BSB-006	1
	12880845	Complete blade 28 sections; BSB-007	1
77	12880848	Blade teeth head	1
78	12880878	Teeth bar; BSB-005	1
	12880851	Teeth bar; BSB-006	1
	12880852	Teeth bar; BSB-007	1
79	12880854	Double blade tooth	-
80	3090103	Grease fitting 45° M06-1.00	1
81	000-1278	Bolt HH M10-1.50x30 C8.8 Z F	-

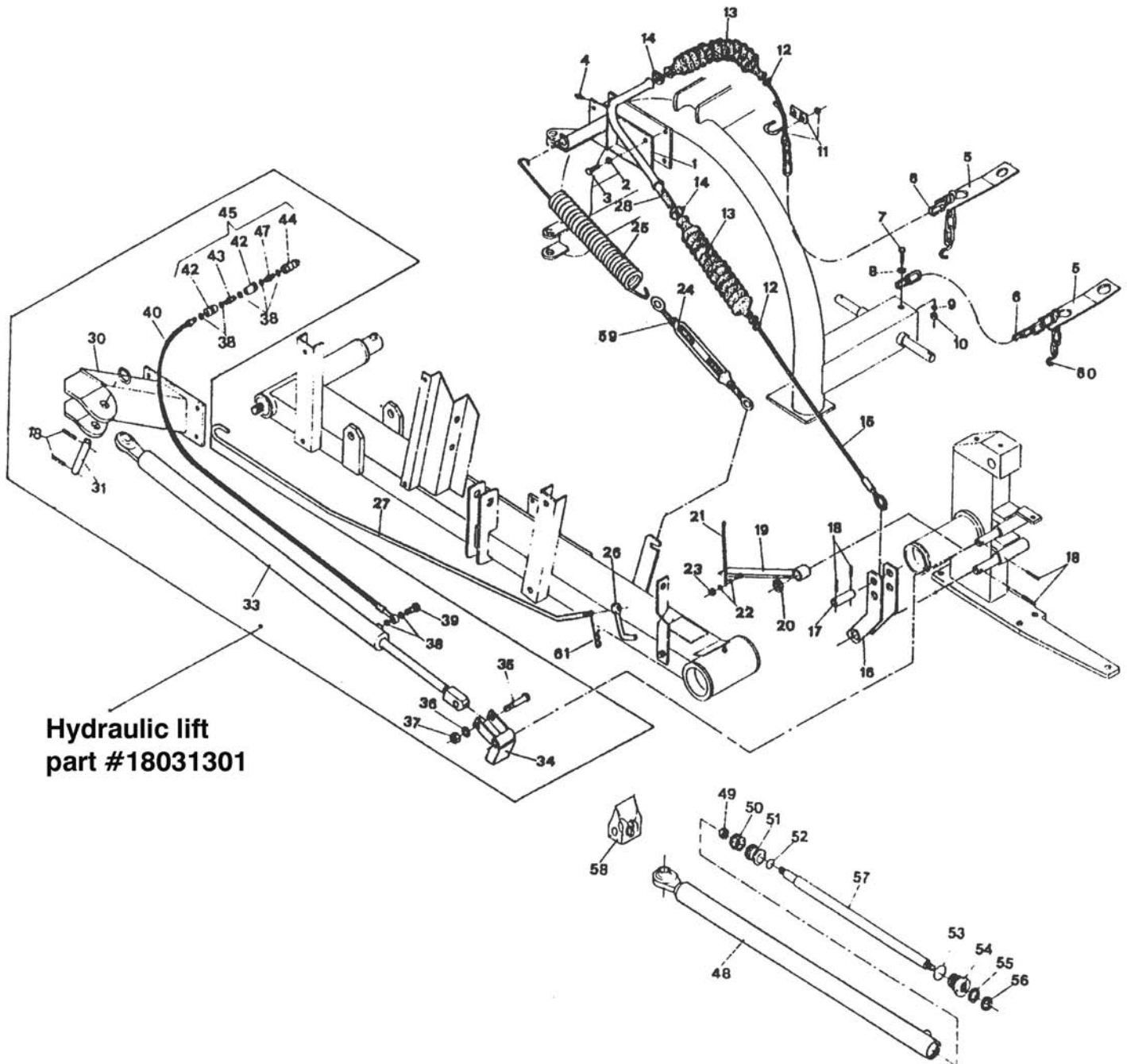
¹⁰ Replaces part #18031332.



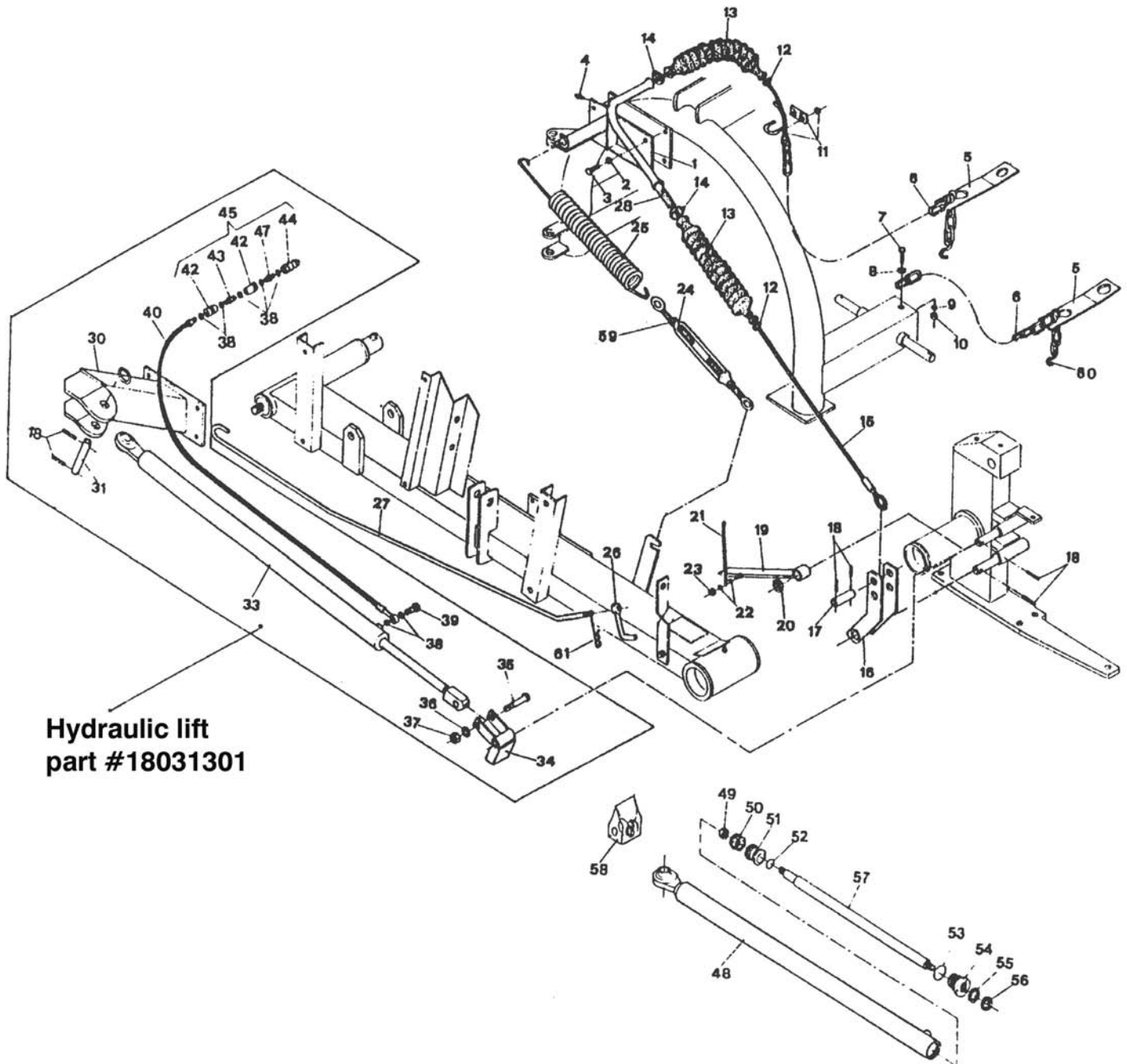
Ref.	Part #	Description	Qty.
82	12880859	10 teeth rack; BSB-005	1
	12880842	12 teeth rack; BSB-006	1
	12880812	14 teeth rack; BSB-007	1
83	11010523	Protection spring	1
84	18031359	Blade protection; BSB-005	1
	18031333	Blade protection; BSB-006	1
	18031334	Blade protection; BSB-007	1
85	18031345	Spacer Ø31.8x21	1
87	008-4289	Bolt CR M08-1.25x20 C4.6 Z	1



Ref.	Part #	Description	Qty.
1	18031363	Hydraulic cylinder support; BSB-005	1
2	000-2034	Washer, flat Ø10x20x2 Z	4
3	000-6349	Bolt HH M10-1.50x20 C8.8 Z F	4
4	12880815	Pin Ø20x94	1
5	000-6605	Roll pin Ø6x30	4
6	12400202	Hydraulic cylinder, complete; BSB-005	-
7	18031364	Hinge plate; BSB-005	1
8	18031365	Hinge bracket; BSB-005	1
9	12880876	Pin Ø14x50	1
10	3120138	Snap ring, outer Ø14	2
11	18031342	Fork hinge	1
12	009-1128	Bolt HH M14-2.00x65 C8.8 Z P	1
13	009-1435	Washer, flat Ø14	1
14	001-5218	Nut ES M14-2.00 Z TN	1
15	12880866	Tie rod; BSB-005	1
16	001-5240	"R" clip Ø3x60	1
17	000-1177	Nut HH M14-2.00 C6 Z MD	1
18	18031316	Tie rod bracket	1
19	18031339	Nut with handle	1
20	009-0150	Nut HH M10-1.50 C6 Z MD	2
21	000-2034	Washer, flat Ø10x20x2 Z	2
22	N00-C2045	Washer, copper ¼"	6
23	N00-C1046	Drilled bolt ¼"	1
24	12760604	Hydraulic hose, complete	-
25	4020403	Flow regulation valve ¼"	2
26	4010211	Connector ¼"-½"	1
27	4010212	Nipple ¼"	1
28	4011804	Quick coupler ½"	1
29	12760603	Hydraulic hose ¼"x2000	1
30	12400203	Cylinder 40x25; BSB-005	1
31	001-7106	Nut ES M14-1.50 Z TN	1
32	10010661	Gasket	1
33	12410201	Head	1
34	10010665	Gasket OR 616	1
35	10010664	Gasket OR 219	1
36	12420201	Ring nut	1
37	10010662	Gasket	1
38	10010654	Scraper WRM	1
39	12440202	Shaft Ø25	1
40	10010663	Seal kit, complete	-

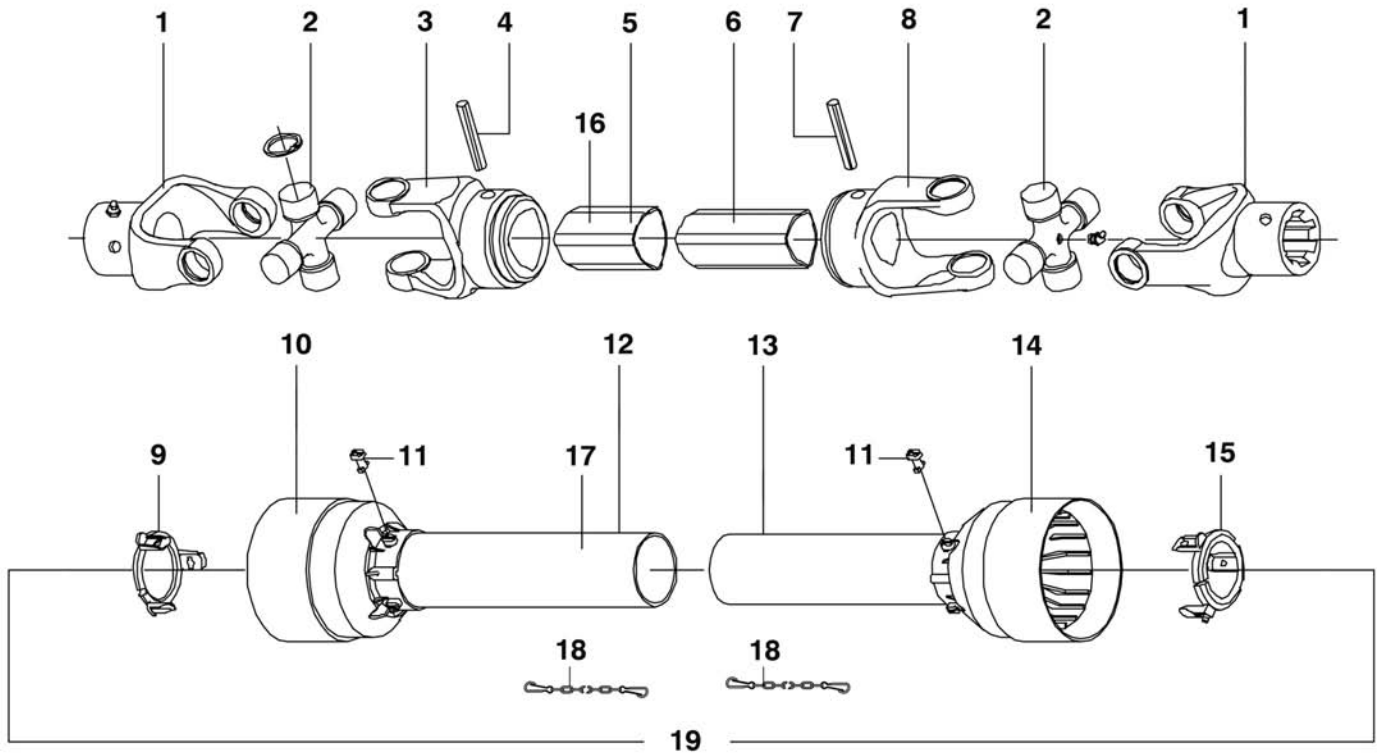


Ref.	Part #	Description	Qty.
1	18031302	Mechanical lift hitch	1
2	000-2034	Washer, flat Ø10 Z	4
3	000-6349	Bolt HH M10-1.50x20 C8.8 Z F	2
4	3090101	Grease fitting M08-1.00	1
5	12880829	Hitch plate	2
6	3150107	Chain	2
7	3011208	Bolt HH M12-1.75x40 C8.8 Z P	2
8	12880813	Washer Ø12x40x8 Z	2
9	000-2265	Washer, flat Ø12X24X2.5 Z	2
10	009-4139	Nut ES M12-1.75 Z TN	2
11	3170103	Hold fast clip Ø8	1
12	4010714	Clamp 4.6/120	2
13	9070105	Guard	2
14	4010710	Clamp 25/40	2
15	12570102	Lifting cable	1
16	18031337	Link	1
17	12880833	Pin Ø20x68	1
18	000-6605	Roll pin Ø6x30	6
19	18031338	Lift frame	1
20	12880843	Spacer Ø20x30x10	1
21	18031343	Chain	1
22	001-1209	Washer, flat Ø6x18	2
23	3020213	Nut ES M06-1.00 Z TN	1
24	12880839	Turnbuckle	1
25	11010522	Spring Ø60x460	1
26	18031339	Nut with handle	1
27	18031340	Tie rod	1
28	11010619	Spring Ø21x450	1
30	18031341	Hydraulic cylinder bracket	1
31	12880815	Pin Ø20x94	1
32	003-3176	Bolt HH M10-1.50x25 C8.8 Z F	2
33	12770801	Hydraulic cylinder, complete; BSB-006, BSB-007	-
34	18031342	Fork hinge	1
35	009-1128	Bolt HH M14-2.00x65 C8.8 Z P	1
36	009-1435	Washer, flat Ø14	1
37	001-5218	Nut ES M14-2.00 Z TN	1
38	N00-C2045	Washer, copper ¼"	6
39	N00-C1046	Drilled bolt ¼"	1
40	12760602	Hydraulic hose ¼"x2200	1
42	4020403	Flow regulation valve ¼"	2
43	4010212	Nipple ¼"	1
44	4011804	Quick coupler ½"	1
45	12760601	Hydraulic hose, complete; BSB-006, BSB-007	-
47	4010211	Connector ¼"-½"	1
48	12400201	Cylinder 40x25; BSB-006, BSB-007	1
49	001-7106	Nut ES M14-1.50 Z TN	1
50	10010661	Gasket	1
51	12410201	Head	1
52	10010665	Gasket OR 616	1
53	10010664	Gasket OR 219	1
54	12420201	Ring nut	1

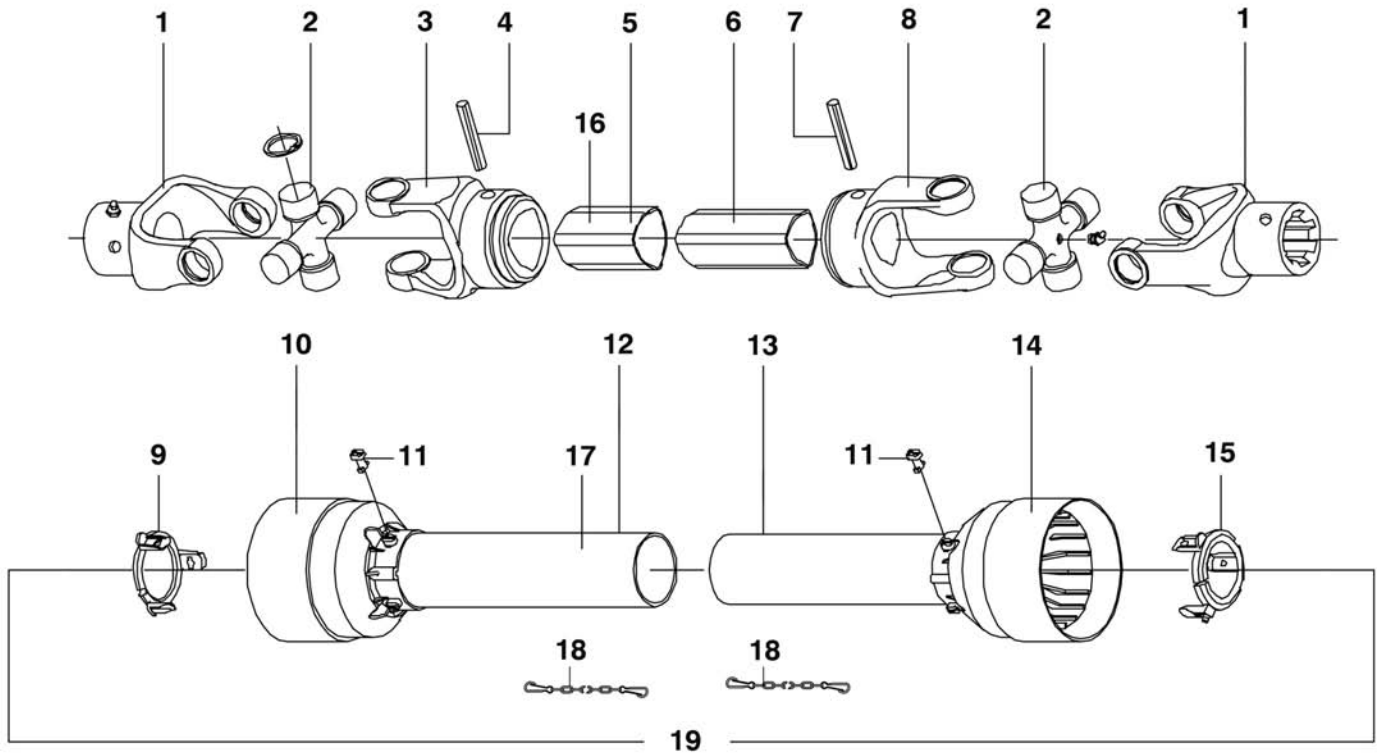


Hydraulic lift
part #18031301

Ref.	Part #	Description	Qty.
55	10010662	Gasket	1
56	10010654	Scraper WRM	1
57	12440201	Shaft Ø25	1
58	10010663	Seal kit, complete	-
59	000-1177	Nut HH M14-2.00 C6 Z MD	1
60	3170105	"S" hook	2
	18031301	Hydraulic lift, complete; BSB-006, BSB-007	-
	503-722B	Manual lift, complete; BSB-006, BSB-007	-



Ref.	Part #	Description	Qty.
1	021-001E	PTO yoke	2
2	011-130E	Cross & bearing	2
3	011-003E	Yoke, outer tube	1
4	000-011E	Roll pin Ø8x50, outer tube	1
5	110-208E	Outer tube	1
6	110-108E	Inner tube	1
7	000-010E	Roll pin Ø8x45, inner tube	1
8	011-002E	Yoke, inner tube	1
9	011-008E	Guard retaining collar, outer tube	1
10	012-013E	Guard cone, outer tube	1
11	000-019E	Bolt, plastic	6
12	111-108E	Shield, outer tube	1
13	111-208E	Shield, inner tube	1
14	012-012E	Guard cone, inner tube	1
15	011-007E	Guard retaining collar, inner tube	1
16	950-464B	Decal "DANGER - Guard missing, do not operate" outer tube	1
17	950-463B	Decal "DANGER - Rotating driveline, keep away" outer shield	1
18	016-025E	Safety chain	2
19	210-272E	Complete shield	-
	948-408B	Complete driveline	-



Ref.	Part #	Description	Qty.
1	024-001E	PTO yoke	2
2	014-130E	Cross & bearing	2
3	014-006E	Yoke, outer tube	1
4	000-014E	Roll pin Ø8x65, outer tube	1
5	140-209E	Outer tube	1
6	140-109E	Inner tube	1
7	000-012E	Roll pin Ø8x55, inner tube	1
8	014-007E	Yoke, inner tube	1
9	013-012E	Guard retaining collar, outer tube	1
10	013-016E	Guard cone, outer tube	1
11	000-019E	Bolt, plastic	6
12	141-109E	Shield, outer tube	1
13	141-209E	Shield, inner tube	1
14	013-015E	Guard cone, inner tube	1
15	013-011E	Guard retaining collar, inner tube	1
16	950-464B	Decal "DANGER - Guard missing, do not operate" outer tube	1
17	950-463B	Decal "DANGER - Rotating driveline, keep away" outer shield	1
18	016-025E	Safety chain	2
19	240-209E	Complete shield	-
	948-405B	Complete driveline	-

BEFCO[®]

P.O. Box 6036
Rocky Mount, NC 27802-6036
Tel.: 252.977.9920 - Fax: 252.977.9718
www.befco.com

