
LC900 Chipper
OPERATION, MAINTENANCE AND
SPARE PARTS MANUAL
s/n 1011-

VALBY®

VALBY®



Northeast Implement Inc.

Spencer, NY 14883

Tel: 607-589-6160

Fax: 607-589-4026

www.northeastimplement.com

**It is very important to read this entire owners/operators
manual before using this machine**

LC900 Chipper
OPERATION, MAINTENANCE AND
SPARE PARTS MANUAL
s/n 1011-



This Page Left Blank Intentionally

LC900 Chipper

OPERATION, MAINTENANCE AND SPARE PARTS MANUAL

s/n 1011-



TABLE OF CONTENTS

1. TO THE OWNER/OPERATOR	5
2. SAFETY INSTRUCTIONS	6
3. GENERAL SAFETY	7
3.1. Rotating Knives	8
3.2. Safety Instructions for Feed Chute	8
4. CHIPPER PRESENTATION.....	9
4.1. Field of Application	9
4.2. Main Components	9
5. TRAFFIC AND PUBLIC ROADS	10
5.1. Transportation Position	10
6. PREPARATIONS FOR START UP	10
6.1. Lifting	10
6.2. Mounting the Chipper	11
6.3. PTO Shaft	11
6.4. Cutting PTO Shaft to Length	11
7. OPERATING THE CHIPPER	12
7.1. Safety When Operating	12
7.2. Prior to Operating.....	12
7.3. Starting the Chipper.....	13
7.4. Chipping	13
7.5. Clearing the Chipper	14
7.6. Stopping the Chipper	14
7.7. Parking the Chipper	14
8. SAFETY AND MAINTENANCE.....	15
8.1. Before Lubrication & Maintenance	16
8.2. Lubrication	16
8.3. Lubricating the Bearings	16
8.4. Lubricating the PTO Shaft	16
8.5. Replacing the Bearings	17
8.6. Adjusting the Bearings.....	18
8.7. Changing the Splined Axle	19
8.8. Knives and Anvils	20
8.9. Sharpening the Knives	20
8.10. Adjusting Anvil Clearance	21
8.11. Sharpening the Anvil.....	21
8.12. Tightening the Bolts.....	22
8.13. Torques & Clearances	22
9. MAINTENANCE & LUBRICATION SCHEDULE	23

LC900 Chipper
OPERATION, MAINTENANCE AND
SPARE PARTS MANUAL
s/n 1011-



10. TROUBLE SHOOTING	24
11. STORAGE & DISCARDING	24
11.1. Storing the Chipper	24
11.2. Discarding the Chipper.....	24
12. CRIME PREVENTION.....	24
13. TECHNICAL DATA	25
13.1. Unified Standards.....	25
13.2. National Standards.....	25
14. SPARE PARTS –DISCHARGE CHUTE	26
15. SPARE PARTS – CHIPPER	27
16. SPARE PARTS – BEARINGS.....	29
17. SPARE PARTS – HYDRAULIC FEED CHUTE	30
18. SPARE PARTS – HYDRAULIC FEED HOPPER.....	32
19. SPARE PARTS – HYDRAULIC HOSES.....	33
20. SPARE PARTS – PTO SHAFT	34
21. NOTES.....	36
22. WARRANTY.....	37
23. INDEX	39

LC900 Chipper
OPERATION, MAINTENANCE AND
SPARE PARTS MANUAL
s/n 1011-



1: TO THE OWNER-OPERATOR

Thank you for purchasing a VALBY product

Before we begin this manual, the people at VALBY want you, the owner-operator, to know this piece of equipment can be very dangerous if safety procedures and warnings are ignored. Read this manual carefully page by page until you understand it completely. Failure to do so can and will result in personal injury and/or equipment damage.

All personnel including operators, maintenance crews, and bystanders, etc. should read this manual before start up.

This manual should be considered a permanent part of your machine and should remain with the machine if you sell it.

IMPORTER:

NORTHEAST IMPLEMENT
460 Halsey Valley Road
Spencer, NY 14883
U.S.A.

Phone: 607-589-6160
Fax: 607-589-4026
E-Mail: info@northeastimplment.com
Web: www.northeastimplement.com

Record Your Serial Number: Make: VALBY
Model: LC900

s/n: _____

2: SAFETY INSTRUCTIONS

TERMS AND SYMBOLS USED IN INSTRUCTIONS



Safety is a combination of operator common sense and alertness at all times when the machine is being operated.



This message is used for general reminders of good safety practices or to direct attention to unsafe practices. The message will appear in your operators' manual and/or the sign will appear on the machine with a color combination of yellow and black



This Message denotes a specific potential hazard. The sign will be displayed on the machine in areas of potential hazard. The sign will have the color combination of yellow and black



This message denotes the most serious specific hazard. The sign will be displayed on the machine in areas of potential hazard.



Message labeled "Important" will appear in your operator's manual to provide specific instructions for performing adjustments, service, etc. If these instructions are not followed it could result in damage to the machine.

3: General Safety



Do not operate this machine until you have read the manual page by page and understand the manual. The owner of this machine is responsible for all operators and support personnel in the operation and safety precautions of this chipper. Proper training prior to operation of the chipper is obligatory.

- Inform everyone who works with the chipper about the risks and how they can avoid accidents.
- Before the chipper is running, ensure that the working place is clear of any bystanders and that you maintain a minimum safe zone of 50 feet.
- Do not let children or untrained persons operate the chipper.
- Always have the chipper mounted on the three point hitch of the tractor. Otherwise the chipper can tip over.
- There is a serious crushing hazard between the tractor and the chipper. Do not go between the tractor and chipper for any reason, for example when you are mounting the chipper to the tractor.
- Always check to make sure that the covers of the universal shaft is in place and functioning and that the safety chains are fastened.
- Safety goggles, ear protection, gloves and a hard hat in good working order are necessary when chipping. Use respirator mask if necessary.
- Do not wear loose clothing, loose sleeves, or scarves and do not allow long uncovered hair around any moving part of the machinery. Also avoid gloves of poor condition or loose fitting, because they can get caught in the branches of trees while feeding the chipper.
- Stay alert! Do not operate the machinery when fatigued or under the influence of alcohol or drugs of any kind.
- **IMPORTANT!** Never leave the chipper running and unattended.
- **IMPORTANT!** Failure to obey the warnings on the chipper or in the operators manual can and will result in personal injury and/or death and/or equipment damage.
- Check the material before you feed it. The material must be free of nails, stones and other materials that are not wood, paper or plastic. **IMPORTANT!** Feeding metal of any kind into the chipper is very dangerous and may pull the operator into the chipper.
- Make sure no one is in the way of flying chips. Point the discharge chute away from windows, doorways and other areas where people or animals may be.

- Keep work area clean and clear so there will be less likelihood of a tripping accident
- Disengage the PTO, shut off the engine and remove the keys before any maintenance is completed.
- Use only original replacement parts. **IMPORTANT!** Do not make any modification to your equipment. This will void any warranties.
- Check all moving parts. They should be fastened in place, in good working condition and all shields and guards must be in place.
- Point the discharge chute downwind to help prevent dust or chips from blowing toward the operator.
- If wood jams inside the chipper, shut off the engine and wait for all movements to stop before reaching into the chipper from any access.
- Do not use the chipper indoors when used with a tractor. It is possible to operate chippers inside when used with electric motors.
- You must be very careful when working indoors. Protect yourself against possible hazards like exhaust gas from insufficient ventilation and from dust that can catch fire by not cleaning your environment regularly.
- Always use a lock bolt before and during maintenance on the machine.

3.1 ROTATING KNIVES



There is a risk of a cutting injury or hits by flying debris. Do not reach into the feed chute for any reason. Failure to follow these instructions could result in serious injury or death.

3.2 SAFETY INSTRUCTIONS FOR FEED CHUTE

- **IMPORTANT!** Always read the general safety instructions.
- **IMPORTANT!** Do not ever put any part of your body inside the feed chute.
- Prior to operating the machine, become familiar with the function and controls of the machine. All functions must be in good and working condition.
- Test any stop functions
- Before starting up, check that there is no debris or foreign objects in the feed chute
- Do not work in front of the feed chute opening. Stand on the left side of the chute when feeding as the chipping process may jerk the wood up or to the right
- When checking malfunctions, all controls must be in "off" or "stop" positions
- Let go of the wood when the knives get hold of it. To feed short pieces, push them with longer ones.

LC900 Chipper

OPERATION, MAINTENANCE AND SPARE PARTS MANUAL

s/n 1011-



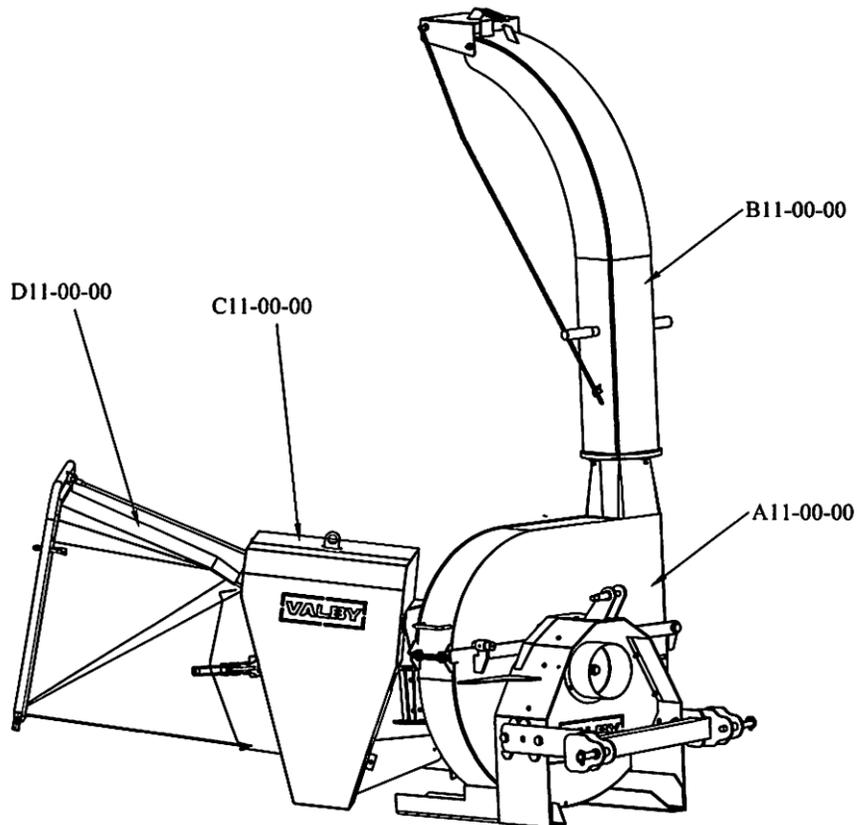
4: CHIPPER PRESENTATION

4.1 FIELD OF APPLICATION

The LC900 is a multipurpose chipper for small sized wood up to 9 inches. It will produce uniform chips to be used for a variety of applications. The LC900 is a heavy duty, mobile machine for handling all kinds of wood waste from parks, roadsides and other environmental cleanup.

4.2 MAIN COMPONENTS

A11-00-00	Main Body
B11-00-00	Discharge Chute
C11-00-00	Hydraulic Feed
D11-00-00	Feed Hopper



5: TRAFFIC AND ROADS



Prior to every procedure always recall the general safety instructions given in chapter 3.

Follow these special instructions to avoid risk of accidents. Otherwise the manufacturer or retailer will not assume any liability for damage.

You should have full control of the unit in every situation when transporting.

Bumpy driving may damage the chipper/feeding device.

Always follow the traffic regulations established by law.

5.1 TRANSPORT POSITION

1. Place the feed chute in transport position.
2. Turn the discharge chute into transport position.
3. Before driving off, ensure the machine is stable and check that the chipper is firmly connected to the tractor and all fasteners are in place.



Make sure that the rear lights of the tractor are visible. Use a separate light panel if needed.

6: PREPARATIONS FOR START-UP



Do not attempt to operate this chipper without proper training. Read and understand the owners' manual before operating the machine.

Failure to heed the warnings printed on the chipper or in the operators' manual may result in serious injury or death.

6.1 LIFTING



Prior to every procedure always recall the general safety instructions given in chapter 3.



Make sure that nobody will enter the lifting zone.



Always check before lifting that the lifting equipment is in order and use the marked lifting points whenever possible. Always use proper lifting equipment and check for its sufficient lifting capacity.

Know the weight of the load and check that the lifting capabilities are not exceeded.

Check the hoist cables and chains regularly. Mark any damages and discard it immediately.

6.2 MOUNTING THE CHIPPER

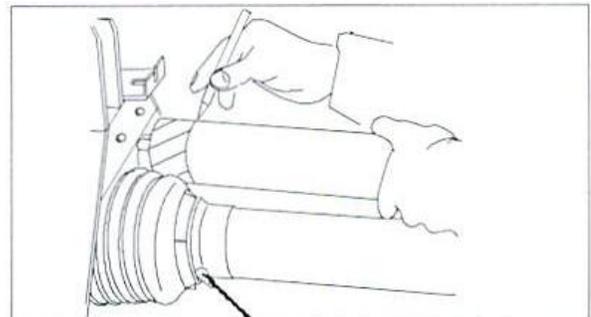
1. Mount the three point hitch bar to the chipper frame.
2. Tighten the nuts to 190 ft. lbs.
3. Mount the feeding devise to the chipper.
4. Connect the discharge chute to the chipper using the three bolts and nuts and adjust the lid using the chain.
5. A power take off shaft (PTO Shaft) transfers the power to the chipper. The chipper has a 1 3/8" diameter six spline PTO hookup.
6. Check the correct length of the PTO shaft (refer to 6.3)

6.3 PTO SHAFT



If the tractor has a PTO brake, you have to use an overrunning clutch. Shaft recommendation is M6-SLC-32 (refer to Pg 34)

1. Mount the chipper on the three point hitch of the tractor.
2. Make sure the chipper is in the lowered position on a firm and level surface.
3. Shut off the engine and remove the keys.
4. Connect one shaft half to the chipper PTO and the other half to the tractor PTO. Place the shafts side by side so that one shaft end is 1" from the PTO end of the chipper. Mark the length required. The tubes must be short enough that they will not bottom out in any chipper position. Cut the plastic tube.

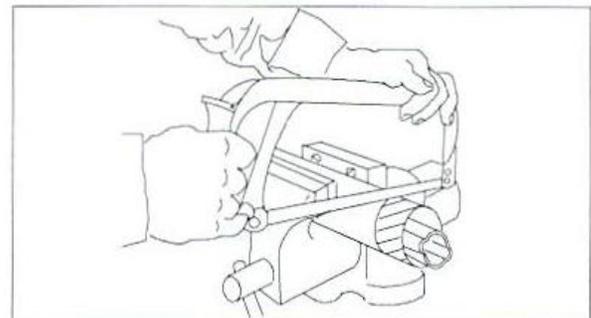


6.4 CUTTING PTO SHAFT TO LENGTH



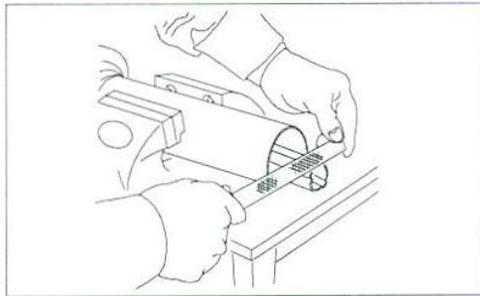
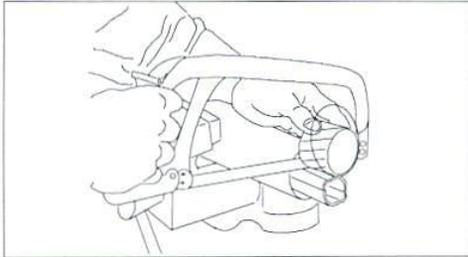
If the PTO shaft is too long it may bind when the three point hitch is lifted. Damage may be caused to the bearings of the chipper,

PTO shaft or tractor. **If the PTO shaft is too long, it must be shortened.** Both PTO halves must be shortened by equal amounts.



5. Cut a profile tube piece of similar length as the plastic tube piece. Shorten the other PTO shaft in the

same manor. Finish by filing the sharp edges.



and that you maintain a minimum safe zone of 50 feet.

Do not let children or untrained persons operate the chipper.

Do not use the chipper if disconnected from the power source.

When using a tractor, always have the chipper connected to the three point hitch of the tractor. Failure to do this may result in the chipper tipping over.

Check that the covers of the PTO shaft are in place and in working order and that the safety chains are connected.

7: OPERATING THE CHIPPER

7.1 SAFETY WHEN OPERATING



Prior to every procedure always recall the general safety instructions given in chapter 3.



Inform everyone who works with the chipper about the risks and how they can avoid accidents.

Never leave the chipper running and unattended. Do not ever stand between the tractor and chipper.

Before the chipper is running, ensure that the workplace is clear of any bystanders

Safety goggles, ear protection, gloves and a hard hat in good working order are necessary when chipping. Use respirator mask if necessary.

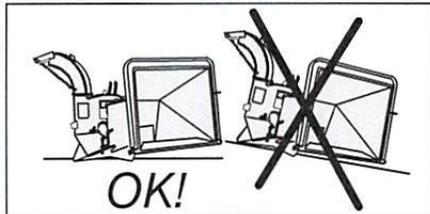
Do not wear loose clothing, loose sleeves, or scarves and do not allow long uncovered hair around any moving part of the machinery. Also avoid gloves of poor condition or loose fitting, because they can get caught in the branches of trees while feeding the chipper.

Stay alert! Do not operate the machinery when fatigued or under the influence of alcohol or drugs of any kind.

7.2 PRIOR TO OPERATING

1. Disengage the PTO, shut off the engine and remove keys.
2. Lower the chipper to the ground. Make sure the ground is solid and

level so that it will not tip over. Please refer to the following graphic.



slowly allowing the disk to rotate. Once you have the chipper running, you may completely engage the PTO and then bring up the rpm's to operating speed (540-1000 rpm). **Always operate the tractor at full engine speed when chipping.**

3. Check for free rotation of the disk by turning the chipper axel by hand. Also check for any foreign objects in the chipper and the feed chute.
4. Make sure all covers are in place and in working order. **Do not remove any covers!**
5. Direct the discharge chute into the desired position away from operator and any possible bystanders.

7.4 CHIPPING



Prior to every procedure always recall the general safety instructions given in chapter 3.



Beware of rotating knives and risk of cutting injury. Feeding wire of any kind into the chipper may drag in the operator. Do not reach inside the feed or discharge chute until all movements have stopped.



The PTO shaft of a new chipper needs to be lubricated prior to use.



When using a new chipper, always check the tightness of the bolts and fasteners **after one operating hour.**



Always keep proper firefighting equipment on hand when chipping. Keep an eye on outside temperature of the chipper to prevent overheating of the knives. If there is any concern about heating of the chipper, stop chipping and let the chipper cool down.

7.3 STARTING THE CHIPPER

- **IMPORTANT!** Whenever engaging the PTO on your tractor, you are turning a flywheel with a load of at least 150 lbs. and a geared up belt transmission. Engage the PTO

Good maintenance and a clean work place are of the upmost importance for preventing a fire. Check for hot bearings. Pour water down the feed chute if the chipper starts smoking.

Safety goggles, ear protection, gloves and a hard hat in good working order are necessary when chipping. Use respirator mask if necessary.

Do not wear loose clothing, loose sleeves, or scarves and do not allow long uncovered hair around any moving part of the machinery. Also avoid gloves of poor condition or loose fitting, because they can get caught in the branches of trees while feeding the chipper.

If wood jams inside the chipper, shut off the engine, remove keys and wait for all movement to stop before reaching inside the chipper.

Watch out for flying debris

Before feeding, make sure that the material is free from stones, nails and other materials that are not wood, paper or plastic. Also avoid chipping wood that is frozen as it will not self feed well.

Do not stand in front of the feed chute when feeding. The feed rollers (when equipped) may jerk the wood up or to the right.

- Feed the wood standing on the left side of the chute.
- When chipping wood, push the trunk inside until the knives or feeding mechanism touches the wood. The chipper is self feeding, so let go of the wood as soon as the knives or feed rollers touch it.

- Point the discharge chute downwind to help prevent dust or chips from blowing toward the operator.
- Make sure no one is in the way of flying chips. Point the discharge chute away from windows, doorways and other areas where people or animals may be.
- Keep work area clean and clear so there will be less likelihood of a tripping accident.



Do not use the chipper in temperatures below -5° F (-20° C). Below these this temperature creates a risk of knife damage.

7.5 CLEARING THE CHIPPER (With Hydraulic Feed)

- Prior to shutting down the chipper, run a large branch (3"-4") into the knives and let it chip a few inches. Then reverse the feed and the knives will be cleared.

7.6 STOPPING THE CHIPPER

- Let the tractor return to idle with PTO engaged before turning PTO off. This is especially important on tractors with PTO brakes.

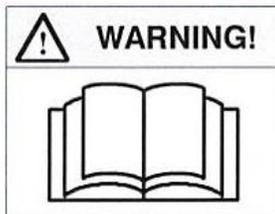
7.7 PARKING THE CHIPPER

- Ensure that the chipper is placed on a hard level surface.
- Ensure there is no material left in the chipper or in the feed chute.

8: SAFETY AND MAINTENANCE



Prior to every procedure always recall the general safety instructions given in chapter 3.



Before performing lubrication work on any equipment, consult the manufacturers' instruction manual and follow the recommended procedures.

Ensure that the chipper is on a firm and level service

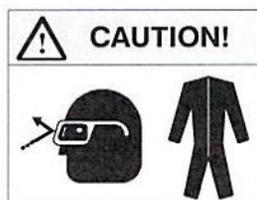


Before lubricating the machine, shut off the engine of the tractor and stop the machine.

When handling the knives use protective gloves. Never stand between the tractor and chipper. Modifications to the chipper are prohibited and will void warranty.



Pressurized oil can be hazardous. A pressurized oil jet can penetrate skin and cause serious injury or death.



Occasional skin exposure with oil is not dangerous. It is recommended to prevent long-time exposure use protective gloves and other protective clothing.



Keep flammable material away from heat, sparks and open flame.

8.1 BEFORE LUBRICATION & MAINTENANCE



Always disengage the PTO and turn the tractor **OFF** before you service or repair the chipper.

Wait for all movement to stop before reaching inside the feed or discharge chute.

Remove the keys so that the tractor cannot be started up accidentally.

Lock the disk for service or repair

Park the chipper on a hard and level surface for it will not tip over.

8.2 LUBRICATION



Hot oil and oil spray is hazardous.

Avoid skin contact with oil and grease. Always consult a physician in cases of oil in the eyes or prolonged skin contact.

Avoid mixing lubricants of different grade and quality. Use only recommended oils or oils with corresponding characteristics.

Follow the instructions and regulations of the manufacturers.

Always wear proper clothing and appropriate gloves.

Never use lubrication oils or grease to clean your hands. Metal particles and additives in the lubricants may damage the skin.

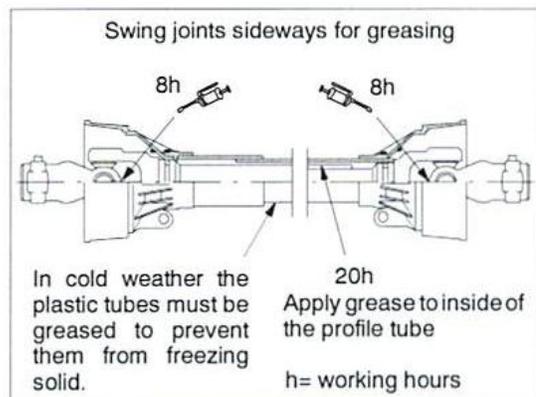
8.3 LUBRICATING THE BEARINGS

The bearings are factory greased, Use a similar lubricant such as Kendall L427. **IMPORTANT! Too much grease will cause heat, which reduces lubrication.**

- Lubricate the bearings every 200 working hours or once a year minimum.
1. Disengage the PTO, shut off the engine and remove the keys.
 2. Open the upper housing and turn aside the upper housing.
 3. Lock the disk with the lock bolt
 4. Remove or turn aside the feed chute.
 5. Remove the top of the bearing housing. Remove as much of the old grease as you can and replace it with new, but do not fill the housing all the way. Refer to Replacing The Bearings as advised in chapter XX
 6. Replace the top of the bearing housing. Tighten to 38 ft. lbs.

8.4 LUBRICATING THE PTO SHAFT

- Lubricate the PTO shaft prior to operating and with the intervals shown below.



8.5 REPLACING THE BEARINGS

1. Remove the fastening bolts and upper housings
2. Mark the location of the tightening cone on the shaft.
3. Lift the disk
4. Bend the claw of the securing ring out from the notch on the axle nut and open the axel nut.
5. Remove the axle nut, securing ring, spacer ring, bearing, spacer ring, and tightening cone.
6. Install the tightening cone, spacer ring, and the bearing on the disk shaft. Note the thickness of the spacer ring.
7. Install the securing ring with the claws facing outward and the inside claw in the groove of the tightening cone, and install the axle nut.
8. The inner ring of the bearing should press tightly against the tightening cone.
9. Tighten the axel nut with a hook spanner until the bearing is tightly on the cone. However, the outer ring of the bearing should turn freely. Note the location of the tightening cone on the shaft.
10. Bend one claw of the securing ring onto a notch on the axle nut.
11. Install the other half of the dust cover and end plate on the bearing housing. Install the spacer ring on the shaft.
12. Lower the disk to the bearing housing.
13. Attach the other half of the dust cover to the upper bearing housing; install the upper bearing housing fastening bolts and tighten
14. Lubricate the bearing housing. An excessive amount of grease causes overheating and impairs lubrication.

8.6 ADJUSTING THE BEARING CLEARANCE

1. Remove the fastening bolts and the upper bearing housings.
2. Remove the grease from the bearing housing.
3. Lift the disk.
4. Bend the claw of the securing ring out from the notch on the axle nut and open the axle nut.
5. Remove the spacer ring if the bearing is at the feeder side.
6. Measure the radial clearance on top of the bearing between the rollers and outer ring with a feeler gauge. The clearance should be 0.02 to 0.03 mm. Measure the clearance by pushing the feeler gauge between the rollers (point A, Fig 1) through the bearing and then moving the gauge back and forth between the rollers and outer ring (Fig. 2). Do not force the feeler gauge through the clearance.
7. If the clearance exceeds 0.03 mm, bend the claw of the securing ring out from the notch on the axle nut.
8. The bearing is tightened by turning the axle nut clockwise with a 70 mm or 2 ¾" hook spanner until the right clearance is achieved. Do not tighten by hammering the axle nut.
9. Turn the axle nut clockwise until the notch is aligned with the nearest claw of the securing ring. Bend the claw into the notch. Do not bend the claw that was bent earlier.
10. Lower the disk to the bearing housing.
11. Install the upper bearing housing and tighten the bolts.
12. Lubricate the bearing housing. An excessive amount of grease causes overheating and impairs lubrication.

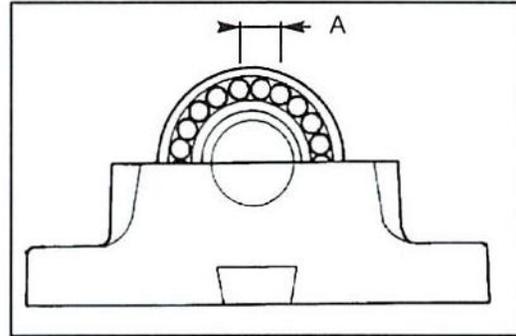


Fig 1

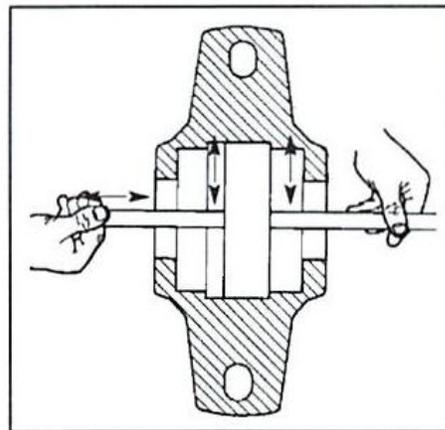
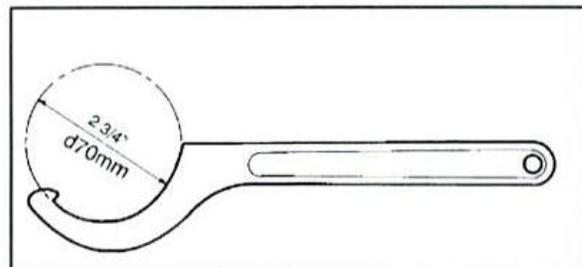


Fig 2



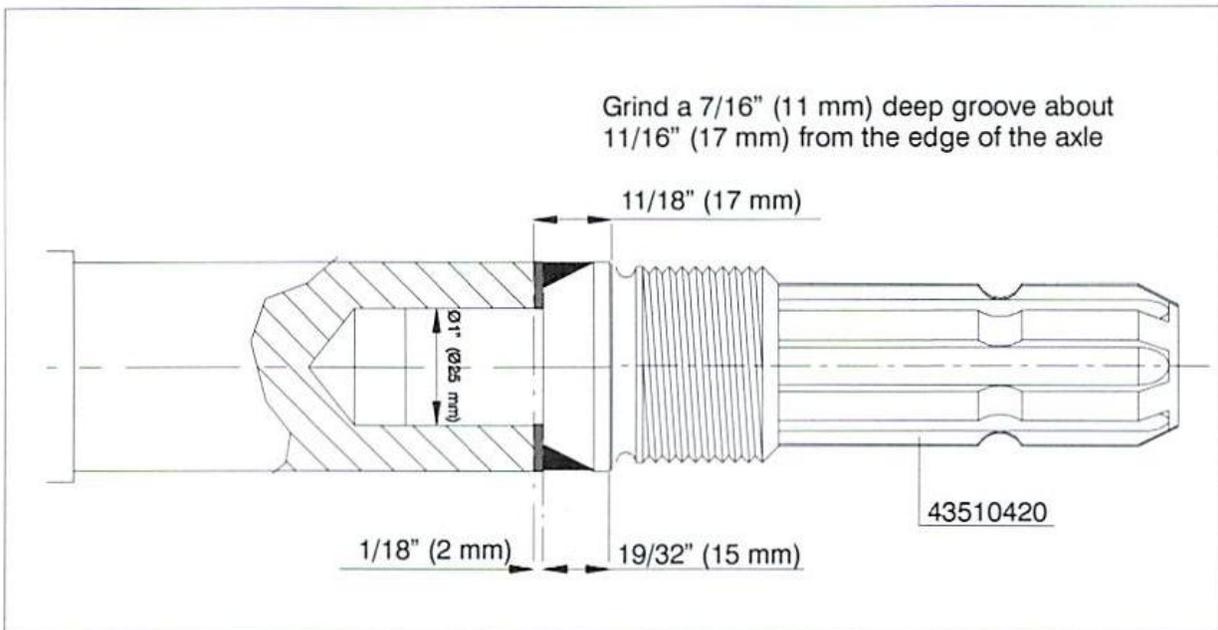
8.7 CHANGING THE SPLINED AXEL

IMPORTANT! Only a qualified person is allowed to change the splined axel.

1. Disengage the PTO, shut off the engine and remove the keys.
2. Open the upper housing and remove it.
3. Remove/turn aside the discharge chute.
4. Remove the top of the bearing housings.
5. Lift away the disk.

6. Remove the bearings.
7. Grind a 7/16" deep groove about 11/16" from the edge of the axle.
8. Turn the axle so that it can come loose and be removed.
9. Clean the hole before mounting the new axel. Tap the new axel slightly in place.
10. Protect the joint faces from splashes before welding.
11. Weld a fillet weld. Finish the welding.
12. Reassemble the chipper.

IMPORTANT! Welding damages the bearings



8.8 KNIVES AND ANVILS



ROTATONG KNIVES! Wait for all movement to stop before reaching into the feed or discharge chute.

The disk continues rotating by flywheel momentum after the PTO has been disengaged.

Use protective gloves when handling the knives

Failure to follow safety precautions could result in serious personal injury or death.

8.9 SHARPENING THE KNIVES

The knives need sharpening when:

- The wood does not self feed well.
- The power demand increases.
- The chip surface is rough

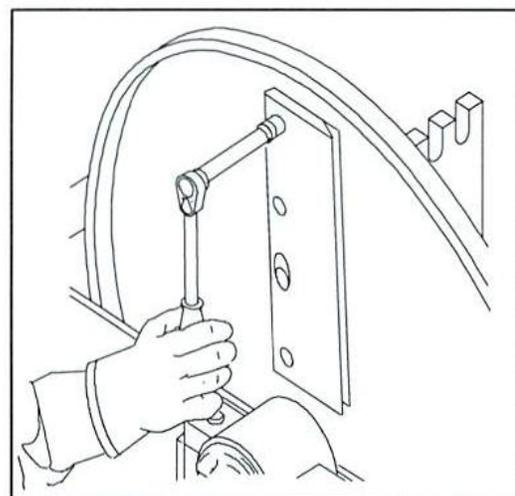
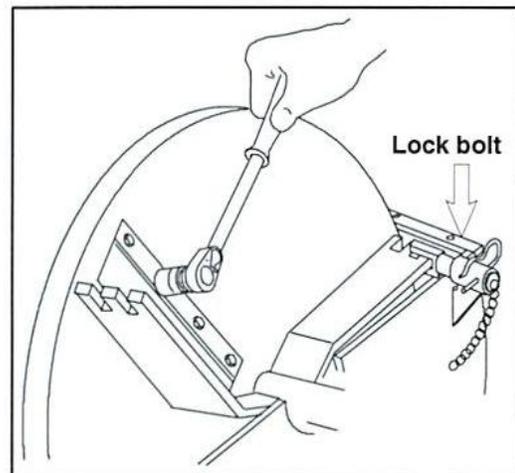


By keeping the knives as original pairs they will wear equally and the disk will stay in balance.

Avoid getting the knives hot when sharpening. Sharpen both knives the same amount.

1. Disengage the PTO, shut off the engine and remove the keys.
2. Open the upper housing. Turn the upper housing to the side.

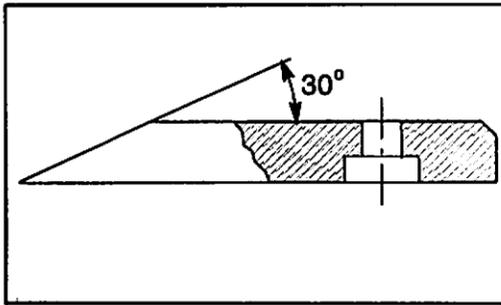
3. Lock the disk with the lock bolt.
4. Remove or turn the feed chute to the side.
5. Remove the four locknuts behind the knife frame.
6. Remove the fastening bolts of the knives which are threaded through the disk. Beware of knuckle injury if the wrench should slip when turning.



LC900 Chipper

OPERATION, MAINTENANCE AND SPARE PARTS MANUAL

s/n 1011-



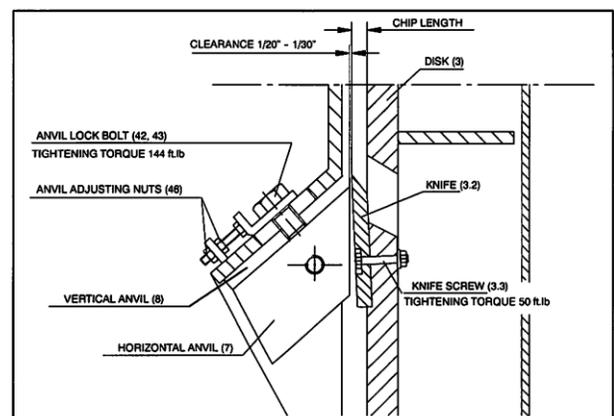
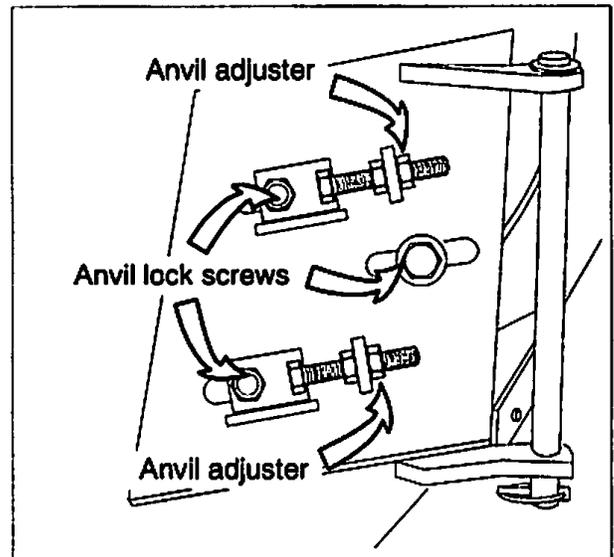
7. Sharpen the knives at an angle of 30 degrees.
8. Check the condition of the fastening bolts and nuts. Clean the knife pockets before reinstalling the knives.
9. Fasten the knife and tighten the bolts to 38 ft. lbs.
10. If needed, adjust the anvil clearance as advised in the next chapter. The anvil clearance has to be adjusted after every 5 to 10 sharpenings, when the clearance between the knives and anvil exceeds 1.5 mm or 1/16".
11. Reassemble

8.10 ADJUSTING ANVIL CLEARANCE

Normally you can sharpen the knives 10 times before the anvil needs to be adjusted. Adjust the anvil if the clearance to the edge of the knives exceeds 1.5 mm or 1/16" of an inch.

1. Disengage the PTO, shut off the engine and remove the keys.
2. Open the upper housing. Turn the upper housing to the side.
3. Lock the disk with the lock bolt.
4. Remove or turn the feed chute to the side.
5. Loosen the three fastening bolts of the anvil.

6. Turn the disk so that the knife and the anvil are opposite each other. Adjust the anvil to a clearance of 1/20 to 1/30 of an inch. If you do not have a gauge, use the thickness of a match book cover.
7. Retighten the anvil bolts to 155 ft. lbs.

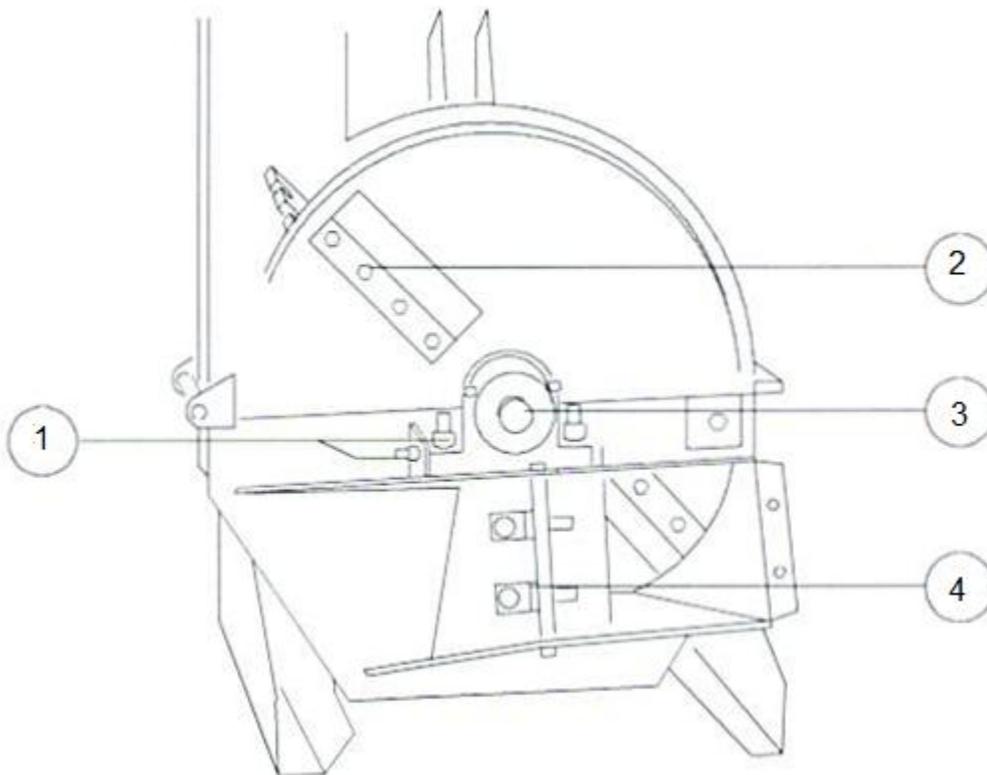


8.11 SHARPENING THE ANVIL

If you notice wear or rounding of the inner edge of the anvil, sharpen the anvil so that the original angles are achieved.

8.12 TIGHTENING THE BOLTS

- The tightness of the fasteners and the bolts in the chipper must be checked once a week. **IMPORTANT! On a new machine check the bolts and nuts after one hour of use.**
- Refer to the lubrication schedule chapter XX. Tighten as indicated in the chart below



8.13 TORQUES AND CLEARANCES

Item	Description	Socket Size	Torque (Ft. Lbs.)
1	Check bearing housing bolt tightness	19 mm (¾")	50
2	Check knife bolt tightness	17 mm (11/16")	45
4	Check anvil bolt tightness	24 mm (15/16")	200
Item	Description	Measurement	
3	Check bearing radial clearance	0.02 – 0.03 mm	

LC900 Chipper
OPERATION, MAINTENANCE AND
SPARE PARTS MANUAL
s/n 1011-



9: MAINTENANCE & LUBRICATION SCHEDULE

GENERAL	EVERY 8 HOURS	EVERY 20 HOURS	EVERY 40 HOURS	EVERY 2000 HOURS (Once Yr)	PROCEDURE	SEE PAGE
KNIVES & ANVILS	Or When Needed				Check for sharpness and clearance	20
			Or After One Week		Check for the bolt tightness	22
PTO SHAFT	X				Lubricate as Advised (Sec 8.4)	16
BOLTS & NUTS			X		Check knives & anvils and when necessary sharpen or correct clearance.	21,22
BEARINGS				X	Grease bearings	16

10: TROUBLE SHOOTING

PROBLEM	PROBABLE CAUSE	SOLUTION
Pulverized Chips	Too high rpm	Reduce rpm
Poor Quality Chips	Incorrect clearance of anvils	Adjust clearance
	Dull knives	Sharpen knives
Poor Chipping of Branches	Too low rpm	Increase rpm
Strange Chipper Noise	Bearings not ok	Grease bearings
		Replace bearings
	Loose bolts or fasteners	Tighten bolts or fasteners
	Incorrect clearance between knives and anvils	Adjust clearance
Insufficient Chipping Power	Incorrect clearance of anvils	Adjust clearance
	Dull knives	Sharpen knives
Tractor Stalling When Chipping	Insufficient power	Reduce power demand by chipping smaller material,
		Use more horsepower

11: STORING & DISCARDING

11.1 STORING THE CHIPPER

- If the chipper is to be stored for a longer period, cover the knives with grease and make sure that water can't collect in the chipper.

11.2 DISCARDING THE CHIPPER

- When the machine comes to the end of its working life, it should be duly discarded. Contact local authorities for more information.

- If a theft occurs, notify law enforcement agency having jurisdiction and your insurance carrier immediately.
- Give a full description and a complete set of serial and identification numbers to the investigation officer and insurance carrier.
- If available, provide the investigating officer with photographs of the actual machine, manufacturer literature and knowledge of any identifiable marks that would assist in identifying the machine.
- Regularly check the identification plates on all machines and report any missing or destroyed plates.

12: CRIME PREVENTION

- Contact local authorities and/or your retailer.

LC900 Chipper

OPERATION, MAINTENANCE AND SPARE PARTS MANUAL

s/n 1011-



13: TECHNICAL DATA

Output	17-40 cu. yd/hr
Mean Chip Size	$\frac{3}{4}$ " (19 mm)
Max Wood Diameter	9" (230 mm)
Power Demand	50-100 hp
Tractor PTO Speed	540-1000 rpm
Number of Knives	2 stationary
Power Source	Tractor PTO
Mounting	Three Point Hitch
Disk Diameter	41 inches
Disk Weight	350 lbs
Disk Speed	540-1100 rpm
Bearings	Spherical Roller Bearings
Discharge Chute	Unlimited Rotation
Opening of Upper Housing	Single Hinge
Chipper Wt, Hydraulic Feed	1700 lbs
Feed Options	Hydraulic Feed
Sound Pressure Level	102 dB
Sound Power Level	120 dB

13.1 UNIFIED STANDARDS

- EN292-2
- EN294
- EN60204-1

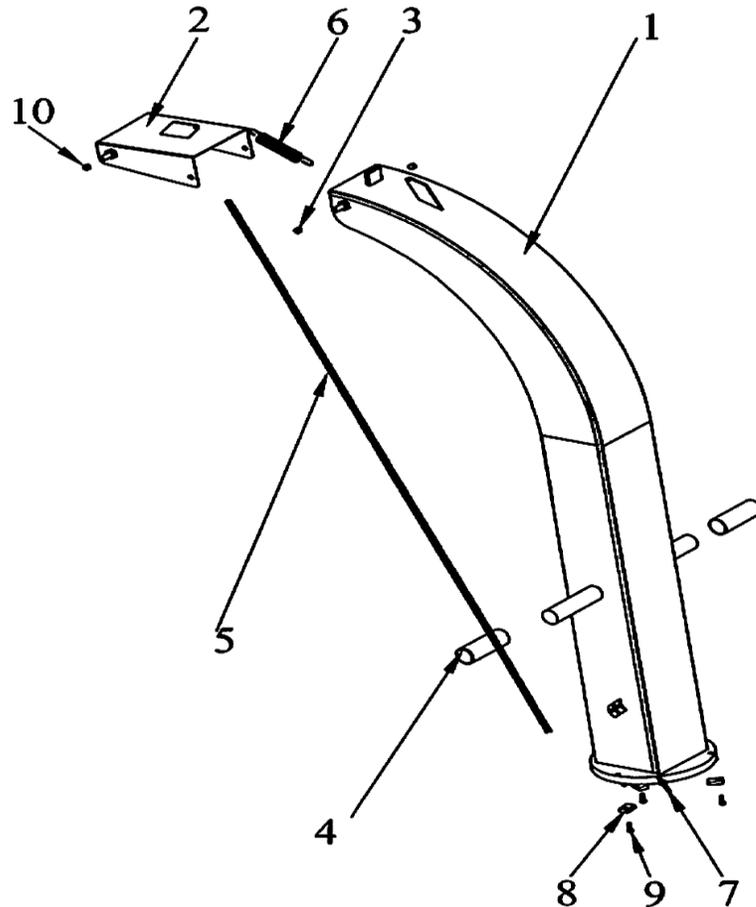
13.2 NATIONAL STANDARDS

- PrEN13252
- prEN1553-1

LC900 Chipper
OPERATION, MAINTENANCE AND
SPARE PARTS MANUAL
s/n 1011-



14: DISCHARGE PIPE

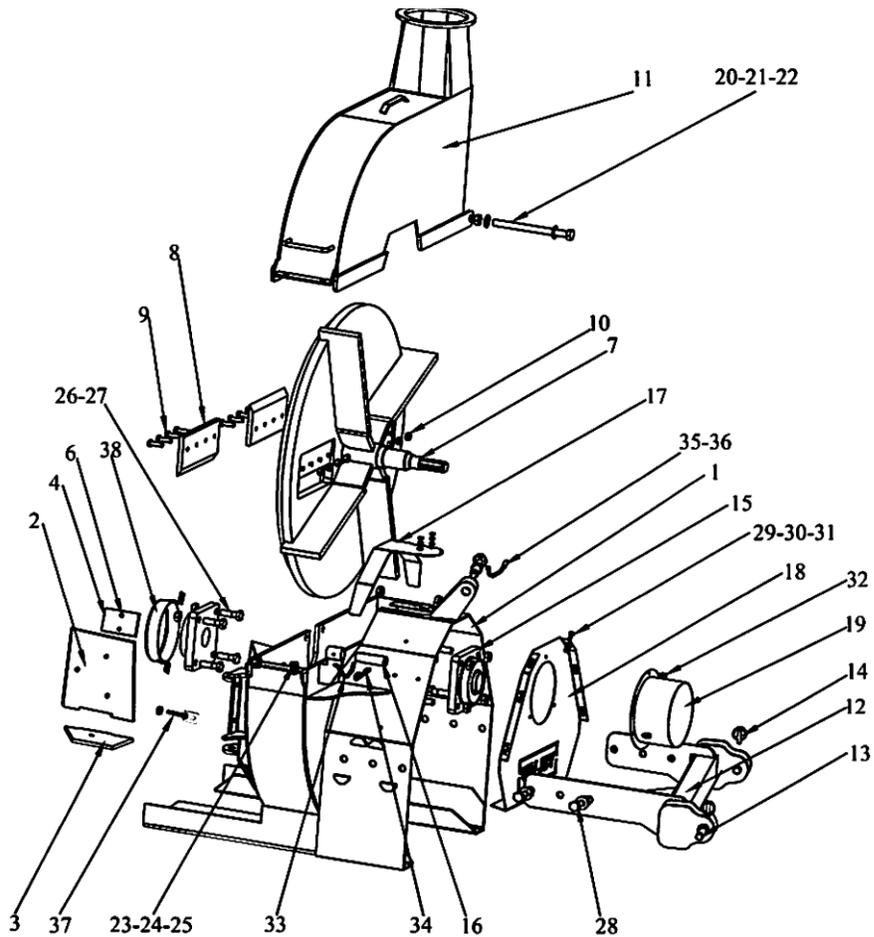


Part	Order#	Mfg#	Description	Remarks	Qty
1	48010120	B11-01-LC900	Discharge Pipe		1
2	48010124	B11-02-LC900	Lid		1
3	48010072	A10-17	Nut	10mm	2
4	48010145	C10-04	Rubber Handle		2
5	48010126	B11-05	Chain		1
6	48010127	B11-06	Spring		1
7	48010148	C10-07	Locking Screw		1
8	48010125	B11-03	Flange		3
9	48010140	B14-08	Bolt	8x30mm	3
10	48010075	A10-20	Nut	8mm	1

LC900 Chipper
OPERATION, MAINTENANCE AND
SPARE PARTS MANUAL
s/n 1011-



15: CHIPPER



Part	Order#	Mfg#	Description	Remarks	Qty
1	48010094	A11-01	Main Body LC900		1
2	48010095	A11-02	Vertical Anvil		1
3	48010096	A11-03	Horizontal Anvil		1
4	48010097	A11-04	Scraping Blade		1
5	48010098	A11-05	Upper Pin		1
6	48010099	A11-06	Bolt	12x25mm	2
7	48010100	A11-07-00	Disk		1
8	48010062	A10-07-08	Blade		2
9	48010108	A11-17	Bolt	12x40mm	8

LC900 Chipper
OPERATION, MAINTENANCE AND
SPARE PARTS MANUAL
s/n 1011-

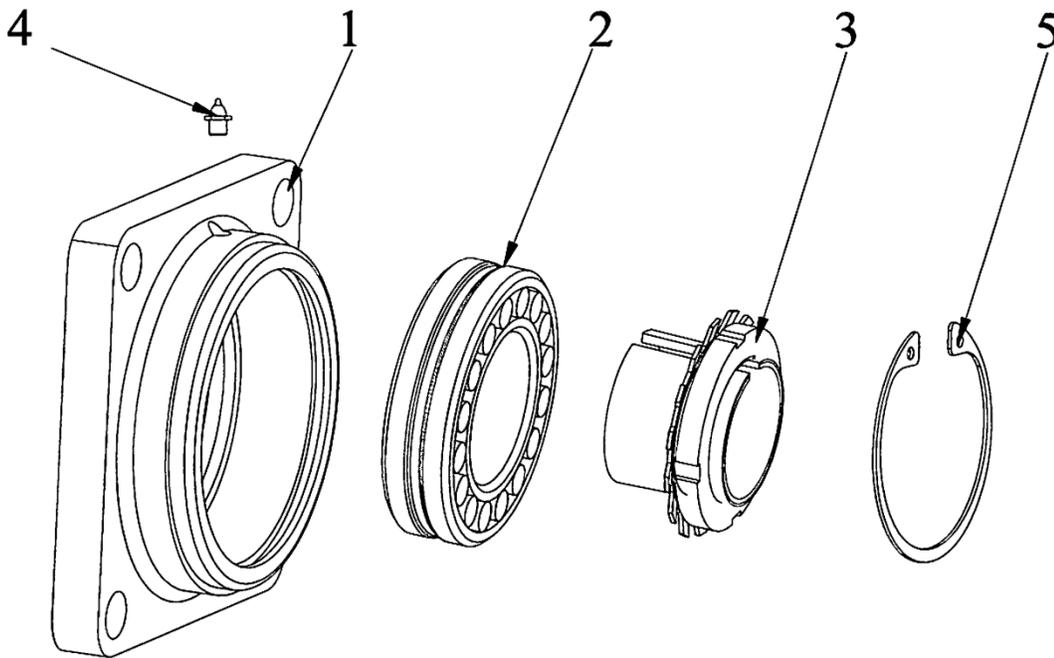


Part	Order#	Mfg#	Description	Remarks	Qty
10	48010082	A10-27	Nut	12mm	8
11	48010101	A11-08-00	Upper Housing		1
12	48010102	A11-09-00	Front Hitch Offset		1
			Front Hitch Straight		1
13	48010057	A10-05	Hitch Pin		2
14	48010066	A10-11	Detent Pin		3
15	48010103	A11-10	Bearing Case		2
16	48010104	A11-12	Fixing Pin		1
17	48010105	A11-13	Shield Plate		1
18	48010106	A11-14	Front Cover		1
19	48010107	A11-15-00	Shaft Shield		1
20	48010109	A11-19	Bolt	20x260mm	1
21	48010110	A11-20	Washer	20mm	2
22	48010086	480-A10-32	Nut	20mm	1
23	48010081	A10-26	Bolt	12x30mm	2
24	48010083	A10-28	Washer	12mm	4
25	48010082	A10-27	Nut	12mm	2
26	48010111	A11-24	Bolt	18x60mm	8
27	48010077	A10-22	Nut	18mm	8
28	48010112	A11-26	Bolt	20x40mm	4
29	48010073	A10-18	Bolt	8x25mm	8
30	48010074	A10-19	Washer	8mm	11
31	48010075	A10-20	Nut	8mm	11
32	48010113	A11-30	Bolt	8x20mm	3
33	48010114	A11-31	Linkage		1
34	48010115	A11-32	Pin		1
35	48010116	A11-33	Linkage		1
36	48010117	A11-34	Linkage Connection		1
37	48010118	A11-35	Anvil Bolt		2
38	48010243	A11-36	Bearing Cover		1

LC900 Chipper
OPERATION, MAINTENANCE AND
SPARE PARTS MANUAL
s/n 1011-



16: BEARINGS



Part	Order#	Mfg#	Description	Remarks	Qty
1	48010244	A11-10-01	Case		2

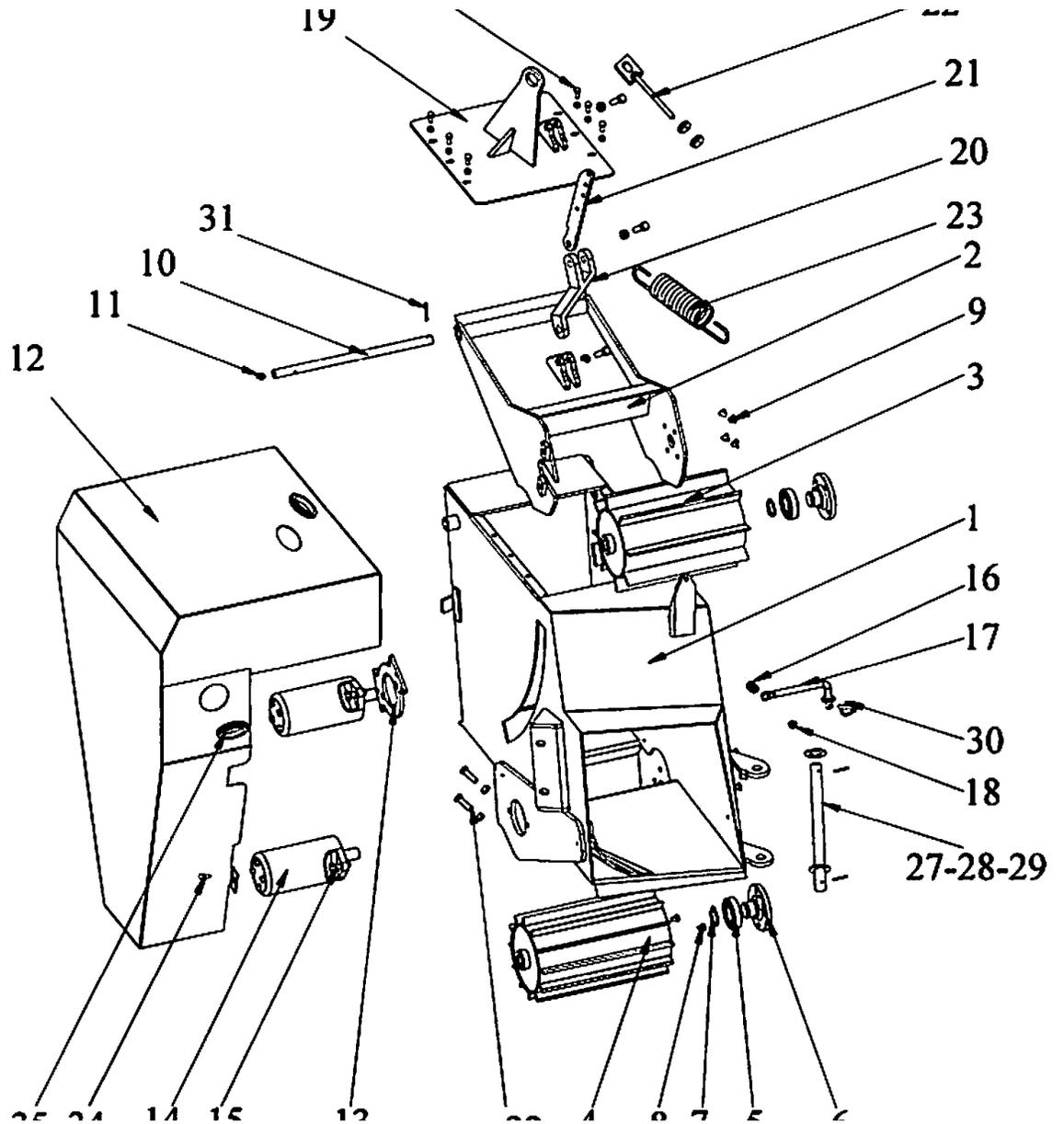
LC900 Chipper
OPERATION, MAINTENANCE AND
SPARE PARTS MANUAL
s/n 1011-



2	48010245	A11-10-09	Bearing	22213	2
3	48010246	A11-10-03	Bearing Stretch		2
4	48010247	A11-10-04	Greaser	5/16"	2
5	48010248	A11-10-05	Ring		2

17: Hydraulic Feed Chute

LC900 Chipper
OPERATION, MAINTENANCE AND
SPARE PARTS MANUAL
s/n 1011-



Part	Order#	Mfg#	Description	Remarks	Qty
1	48010150	C11-01-00	Hydraulic Feed Body		1
2	48010258	C11-02N	Roller Frame		1
3	48010152	C11-03	Upper Feed Roller		1
4	48010153	C11-04	Lower Feed Roller	8mm	1

LC900 Chipper

OPERATION, MAINTENANCE AND SPARE PARTS MANUAL

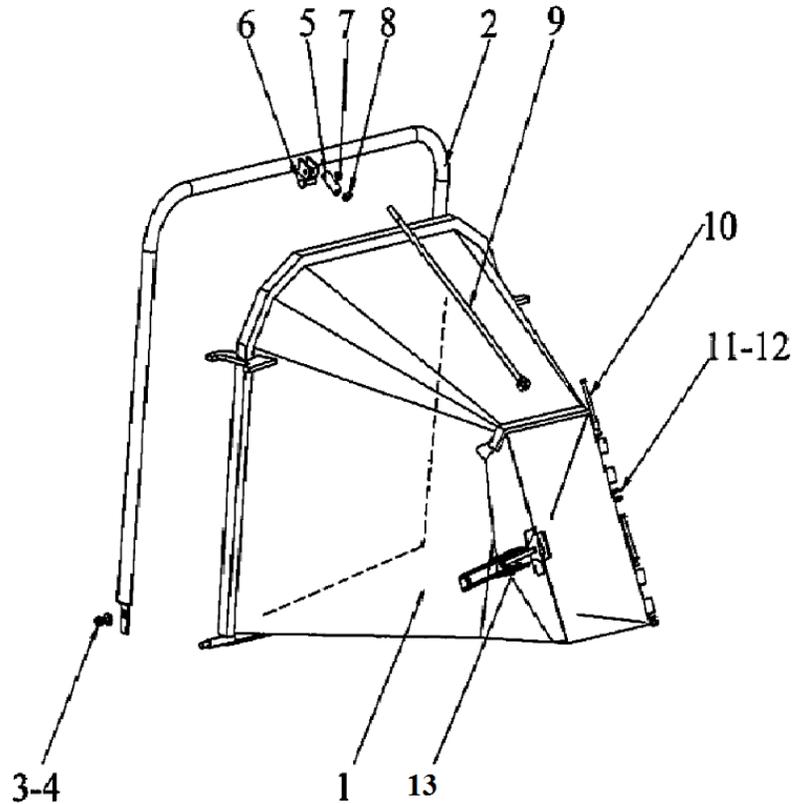


s/n 1011-

5	48010042	C11-05	Roller Bearing	6207	2
6	48010043	C11-06	Roller Support		2
7	48010044	C11-07	Ring		2
8	48010172	C11-23	Bolt	8x10mm	4
9	18010173	C11-24	Bolt	10x10mm	8
10	48010157	C11-08	Connection Pin		1
11	48010158	C11-09	Greaser		1
12	48010259	C11-10N	Cover		1
13	48010160	C11-11	Hydraulic Motor Plate		1
14	48010034	C11-12	Hydraulic Motor		2
15	48010108	A11-17	Bolt	12x40mm	4
16	48010162	C11-13	Spring		1
17	48010163	C11-14	Lock		1
18	48010072	A10-17	Nut	10mm	1
19	48010260	C11-16N	Upper Plate		1
20	48010261	C11-17N	Hinge		1
21	48010262	C11-18N	Plate		1
22	48010263	C11-19N	Pin		1
23	48010264	C11-20N	Spring		1
24	48010073	A10-18	Bolt	8x25mm	6
25	48010074	A10-19	Washer	8mm	6
26	48010075	A10-20	Nut	8mm	6
27	48010265	C11-13N	Connecting Pin		1
28	48010266	A11-20N	Washer	20mm	2
29	48010267	C11-27N	Detent Pin	5x30mm	2
30	48010268	C11-20	Detent Pin	6mm	1
31	48010170	C11-21	Detent Pin	5x45mm	1
32	48010108	A11-17	Bolt	12x40mm	4
33	48010082	A10-27	Nut	12mm	2
34	48010113	A11-30	Bolt	8x20mm	2
35	48010051	C11-22	Rubber Shield		2

18: HYDRAULIC FEED HOPPER

LC900 Chipper
OPERATION, MAINTENANCE AND
SPARE PARTS MANUAL
s/n 1011-



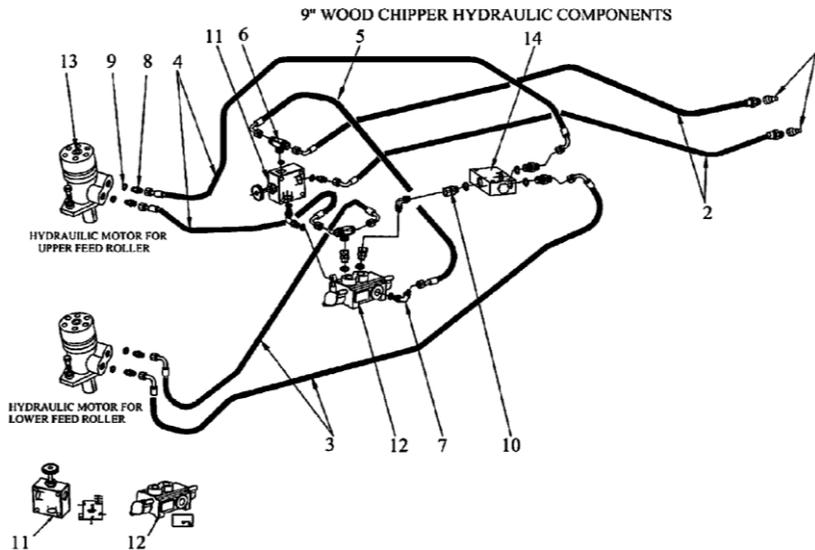
Part	Order#	Mfg#	Description	Remarks	Qty
1	48010175	D11-01	Feeding Hopper		1
2	48010239	D11-02	Function Handle		1
3	48010083	A10-28	Washer	12mm	2
4	48010082	A10-27	Nut	12mm	2
5	48010250	D10-03	Rod Cap		4
6	48010071	A10-16	Bolt	10x45mm	4
7	48010072	A10-17	Nut	10mm	1
8	48010082	A10-27	Nut	12mm	1
9	48010241	D11-04	Rod		1
10	48010189	D11-19	Bolt	8x110mm	1
11	48010075	A10-20	Nut	8mm	1
12	48010074	A10-19	Washer	8mm	2
13	48010242	D11-06	Lock		2

19: HYDRAULIC HOSES

LC900 Chipper

OPERATION, MAINTENANCE AND SPARE PARTS MANUAL

s/n 1011-



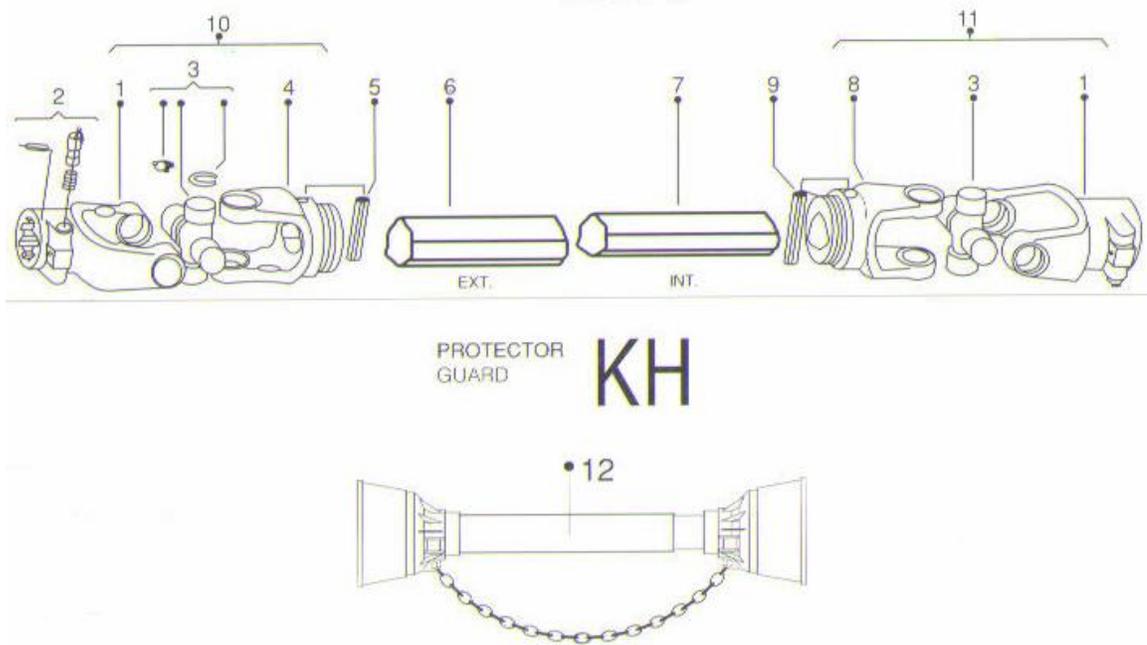
Part	Order#	Mfg#	Description	Remarks	Qty
1	48010219	F10-01	½" Quick Fitting		2
2	48010211	E11-02	½" Hose-LC900	10' 9" Long	2
3	48010213	E11-03	½" Hose	3' 6" Long	2
4	48010214	E11-04	½" Hose	2' 4" Long	2
5	48010215	E11-05	½" Hose	1' 6" Long	1
6	48010230	F10-10	½" T Angle Nipple		2
7	48010216	E11-07	½" L Angle Nipple		3
8	48010221	F10-02	½" Double Nipple		7
9	48010223	F10-04	½" Ring		14
10	48010217	E11-10	Swivel Fitting		3
11	48010225	F10-05	Flow Regulator		1
12	48010226	F10-06	½" 4/3 Directional Valve		1

LC900 Chipper
OPERATION, MAINTENANCE AND
SPARE PARTS MANUAL
s/n 1011-



13	48010161	C11-12	Hydraulic Motor		2
14	48010218	E11-13	Flow Divider Valve		1

20: PTO SHAFT



M6 Series Shaft

Ref#	Part#	MFG #	Description	Qty
1	6242	70.1	Yoke w/quick coupler	2
2	1070	9305	Quick Release Pin	2
3	6081	2200A	Cross	2
4	6230	75	Yoke for Outer Tube	1
5	6204	P.10-75	Spring Pin for Outer Tube	1
6	6240	008	Outer Tube	1
7	6140	007	Inner Tube	1
8	6131	74	Yoke for Inner Tube	1
9	7202	P.10-70	Spring Pin for Inner Tube	1
10	Sp. Ord	70.1-75	Complete Joint Outer Tube	1
11	Sp. Ord	70.1-74	Complete Joint Inner Tube	1
12	6392	KH3/1200	Complete Shield 47"	1
	1000	9100	Safety Chain 20"	1

LC900 Chipper
OPERATION, MAINTENANCE AND
SPARE PARTS MANUAL
s/n 1011-

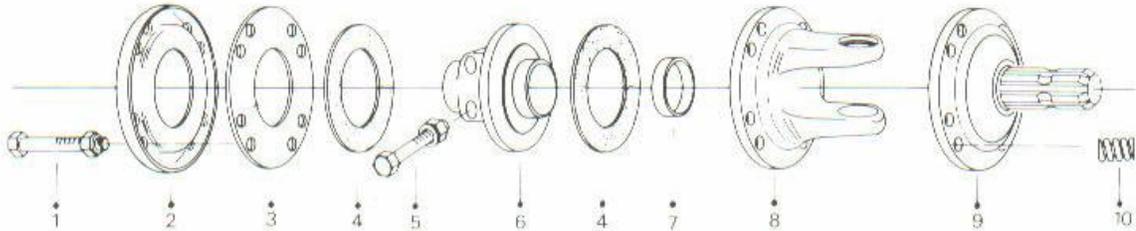


.....6261	9503	Retaining Ring Outer Tube.....	1
.....6167	9003	Retaining Ring Inside Tube.....	1
PTO Shaft Complete	M6-SLC-32 .. n/a	Complete PTO Shaft.....	1

LC900 Chipper
OPERATION, MAINTENANCE AND
SPARE PARTS MANUAL
s/n 1011-



Series 6 PTO Slip Clutch Spare Parts



Ref#	Part#	MFG #	Description	Qty
1.....	6600.....	52/8.....	Complete Screw	8
2.....	6691.....	52/3.....	Pressure Cover	1
3.....	6681.....	52/4.....	Inner Disc	1
4.....	6641.....	52/6.....	Friction Disc.....	2
5.....	6660.....	52/9.....	Complete Screw	1
6.....	6651.....	52/2.....	Center Disc	1
7.....	6631.....	52/5.....	Sintered Bushing.....	1
8.....		90-07/1.....	Flange Yoke	1
9.....		52J8/1.....	Plate w/ Splined Shaft.....	1
10.....	6611.....	52/7.....	Spring	8
	6671.....	52-07.....	Complete Slip Clutch	

LC900 Chipper
OPERATION, MAINTENANCE AND
SPARE PARTS MANUAL
s/n 1011-



NE
E
S
T
I
M
P
L
E
M
E
N
T

Limited Warranty

VALBY warrants our Chippers to be free from defects in materials and workmanship for twenty-four (24) months from date of purchase (two year warranty applies to chippers only), or one month from in-service, whichever is longer. For seals, the warranty is limited to six (6) months. The warranty covers parts replacement only. The free replacement of parts is exclusive. The manufacturer is not liable for any incidental or consequential damages. No labor costs are included, no freight costs are included in replacements. This warranty does not cover defects resulting from:

- misuse of product
- inadequate maintenance
- modifications of the product

The warranty is effective only, if the lower portion of this card is completed and returned to the importer within 14 days of receipt of the product.

IMPORTANT: Do not operate your equipment without reading the operators manual! If the operators' manual was lost, a new manual can be obtained from the importer (write address below or call 607-589-6160).

Date of Delivery: ___/___/___
Customer: _____
Address: _____
City: _____
State, Zip _____, _____
Telephone# (____) _____ - _____
Product: VALBY Chipper Model LC900
Serial# _____
Purchased from: _____

Importer:
Northeast Implement
460 Halsey Valley Road
Spencer, NY 14883
USA

Phone: (607) 589-6160
Fax: (607) 589-4026

Email info@northeastimplement.com
Website: www.northeastimplement.com



Product Registration QR Code

****Please remove this page and mail to address below for warranty registration****
or complete on-line at www.northeastimplement.com, under "Products" tab, click
"Product Registration"

LC900 Chipper
OPERATION, MAINTENANCE AND
SPARE PARTS MANUAL
s/n 1011-



This Page Left Blank Intentionally

INDEX

A

Anvil, 20

B

Bearings, 16

Bolts, 22

C

Chipping, 13

Clearing the Machine, 14

Crime Prevention, 24

D

Discarding, 24

F

Field of Application, 9

G

General Safety, 7

I

Installation, 11

K

Knives and Anvils, 20

L

Lifting, 10

Lubrication, 16

M

Maintenance, 23

O

Operating, 12

Owner-Operator, 5

P

Parking, 14

Preparations, 10

Presentation, 9

PTO Shaft, 11

S

Safety Instructions, 6

Standards, 25

Starting the Chipper, 13

Symbols, 6

T

Technical Data, 25

Transporting, 10

Trouble Shooting, 24

Turning off the Chipper, 14

LC900 Chipper
OPERATION, MAINTENANCE AND
SPARE PARTS MANUAL
s/n 1011-



Thank you for your purchase...

Northeast Implement Inc

Spencer, NY 14883

Tel: 607-589-6160

Fax: 607-589-4026

www.northeastimplement.com

VALBY®