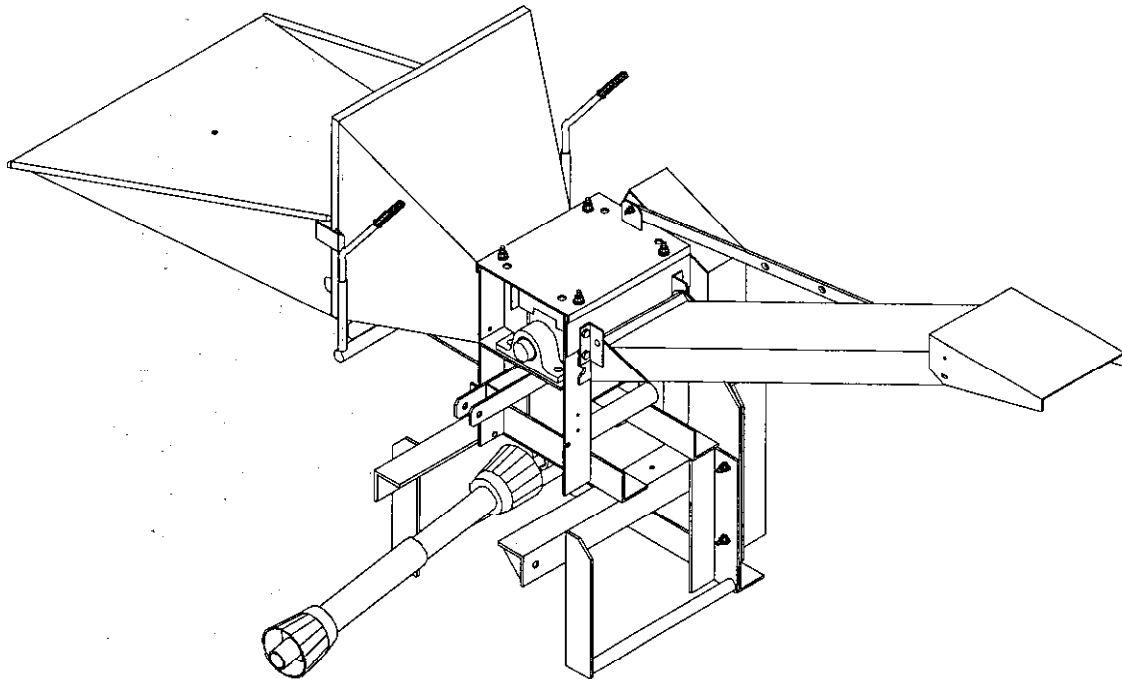




MODEL NO. 44560 - 20101 & UP

**OPERATOR'S
MANUAL**

COMMERCIAL CHIPPER 1200 (3 Pt.)



FOREWORD

Thank you for buying a high quality Toro turf care product. To get the best performance from this machine, operate and maintain it according to the instructions in this manual.

Toro also wants to stress the importance of safety. You and anyone else using or maintaining this machine are strongly urged to read this manual, especially all the safety instructions.

DANGER, WARNING and CAUTION, used with the triangular safety alert symbol, highlight safety messages. Always read and understand these messages because they relate to personal injury and your safety.

If you ever need help or have questions about your new Toro turf care product, contact your local Authorized Toro Distributor. The Toro Distributor has a complete supply of replacement parts, a full line of accessories and a professional service staff to support you. Keep your Toro all Toro. Buy genuine Toro parts and accessories.

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SAFETY INSTRUCTIONS



The safety alert symbol means CAUTION, WARNING or DANGER - "personal safety instruction". Read and understand the instruction because it has to do with safety. Failure to comply with the instruction may result in personal injury.

BEFORE OPERATING

1. Read and understand the contents of this manual before starting and operating the machine. Become familiar with all controls and know how to stop quickly. A free replacement manual is available by sending complete Model and Serial Number to:

The Toro Company
100 Industrial Parkway
Industrial Airport, Kansas 66031

2. Do not allow children to operate the machine. Do not allow adults to operate the machine without proper instruction.

3. **NEVER** operate the machine while under the influence of drugs or alcohol.

4. Keep all shields and safety devices in place. If a shield, safety device or decal becomes damaged, malfunctioning or illegible, repair or replace it before operation is commenced. Also tighten loose nuts, bolts to ensure machine is in safe operating condition.

5. Before each use, tighten all bolts and nuts.

6. Do not alter this equipment in any manner which may cause hazardous conditions.

WHILE OPERATING



DANGER

ROTATING CUTTING BLADES

- **NEVER** operate this machine unless drum cover is securely fastened.
- **NEVER** open drum cover while tractor engine is running
- Drum may rotate for up to 5 minutes after tractor engine is stopped.

7. **NEVER** direct discharge chute at bystanders.

8. Always keep clear of discharge opening.

9. **NEVER** leave operating machine unattended. Stop tractor engine and remove key before leaving work area.

10. **NEVER** wear loose fitting clothing. Always wear safety glasses, gloves and ear protection.

SAFETY INSTRUCTIONS (Continued)

11. Before getting off the tractor seat:

- A. Place the tractor in neutral position and put the engine in idle position.
- B. Set the parking brake and disengage the PTO.
- C. Shut the engine off and remove key from ignition switch. Wait for all movement to stop before getting off tractor seat.

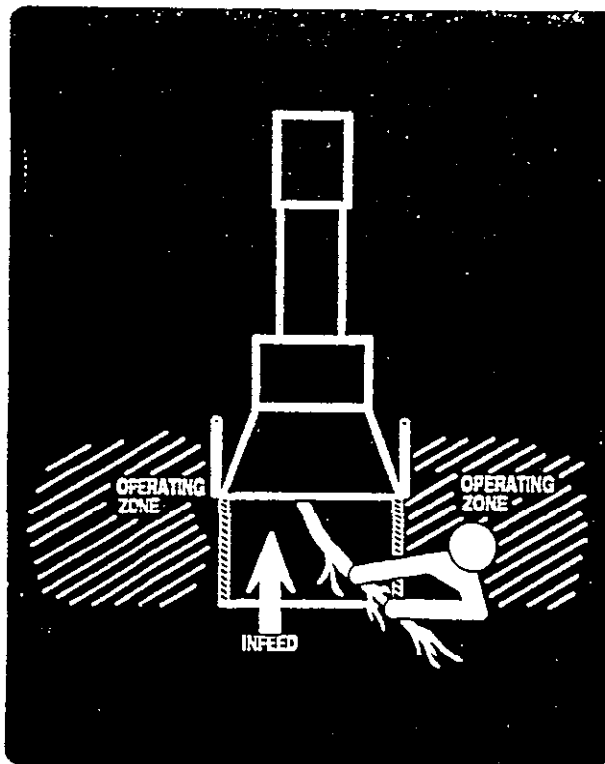
12. **ALWAYS** follow all safety precautions in the tractor's operator manual pertaining to attachments.

MAINTENANCE

- 13. Remove the key from the tractor's ignition switch to prevent accidental starting of the engine when servicing, adjusting or storing the machine.
- 14. If major repairs are ever needed or assistance desired, contact an Authorized TORO Distributor.
- 15. Make sure machine is in safe operating condition by keeping nuts, bolts and screws tight.

SAFETY AND INSTRUCTION DECALS

The following safety and instruction decals are installed on the unit. Replace any decals that become damaged or illegible. Part numbers for decals are listed below and in your Parts Catalog. Order replacements from your Authorized Toro Distributor.



! DANGER

TO MINIMIZE THE RISK OF PERSONAL INJURY OR DEATH COMPLY WITH THE FOLLOWING SAFETY OPERATING INSTRUCTIONS.

- LOS OPERADORES DEBEN ESTAR MUY BIEN CAPACITADOS EN UNA OPERACION SEGURA.
- READ AND UNDERSTAND OPERATOR'S MANUAL BEFORE OPERATING THIS MACHINE.
- NEVER OPERATE MACHINE UNLESS HOOD TOP IS SECURELY FASTENED.
- NEVER SERVICE UNLESS PTO IS DISCONNECTED AND DRUM HAS COME TO A COMPLETE STOP.
- NEVER DIRECT DISCHARGE CHUTE AT BYSTANDERS.
- NEVER OPERATE WITHOUT PROPER GUARDS IN PLACE.
- NEVER ALLOW CHILDREN TO OPERATE THIS MACHINE. NEVER ALLOW ADULTS TO OPERATE WITHOUT PROPER INSTRUCTIONS.
- NEVER LEAVE OPERATING MACHINE UNATTENDED. STOP ENGINE AND REMOVE KEY BEFORE LEAVING WORK AREA.
- NEVER WEAR LOOSE FITTING CLOTHING. ALWAYS WEAR SAFETY GLASSES, GLOVES AND EAR PROTECTION.
- NEVER ENGAGE PTO UNLESS DISCHARGE CHUTE IS DOWN AND LOCKED IN POSITION.

REPLACEMENT MANUAL AVAILABLE BY SENDING COMPLETE MODEL NUMBER TO: THE TORO COMPANY, 100 INDUSTRIAL PARKWAY, INDUSTRIAL AIRPORT, KS. 66031

01-506-0270

EACH SIDE OF INFEED CHUTE
(Part No. 01-506-0270)

SAFETY AND INSTRUCTION DECALS (Continued)

! DANGER

ROTATING CUTTING BLADES AND THROWN OBJECTS CAN CAUSE SERIOUS INJURY

- KEEP HANDS, FEET AND FACE OUT OF INLET OPENING WHILE MACHINE IS RUNNING.
- DRUM AND BLADES REQUIRE UP TO 10 MINUTES TO STOP ROTATING.
- ALLOW ALL MOVING PARTS TO STOP BEFORE UNCLOGGING.
- ALWAYS WEAR EYE PROTECTION WHILE OPERATING.
- KEEP BYSTANDERS AWAY FROM INLET OPENING.

01-506-0400

EACH SIDE OF INFEED CHUTE
(Part No. 01-506-0400)

! DANGER

ROTATING CUTTING BLADES TO AVOID SERIOUS INJURY FROM BLADE CONTACT AND THROWN OBJECTS

- NEVER OPERATE THIS MACHINE UNLESS HOOD COVER IS SECURELY FASTENED WITH NUTS.
- NEVER OPEN DRUM COVER WHILE TRACTOR ENGINE IS RUNNING.
- DRUM MAY ROTATE FOR UP TO 5 MINUTES AFTER ENGINE IS STOPPED.
- NEVER OPEN DRUM COVER WHILE PTO IS ENGAGED.



01-506-1080

ON DRUM COVER
(Part No. 01-506-1080)

! DANGER

HINGED INFEED PLATFORM CAN FALL IF IMPROPERLY FASTENED OR HANDLED

CONTACT WITH FALLING PLATFORM CAN CAUSE SERIOUS INJURY

- ALWAYS SUPPORT PLATFORM WHILE REMOVING PIN.
- LOWER PLATFORM SLOWLY FOR OPERATING POSITION.
- KEEP BYSTANDERS AWAY WHILE RAISING OR LOWERING PLATFORM.
- BE SURE LOCKING PIN IS SECURELY IN PLACE BEFORE LEAVING PLATFORM IN UP POSITION OR TRANSPORTING UNIT.

01-506-0310

BOTTOM OF HOPPER EXTENSION
(Part No. 01-506-0310)

! DANGER

- ROTATING PULLEYS AND BELTS CAN CAUSE SERIOUS INJURY.
- DO NOT OPERATE MACHINE UNLESS ALL GUARDS ARE IN PLACE.



01-506-0040

ON BELT GUARD
(Part No. 01-506-0040)

! DANGER

OBJECTS ARE DISCHARGED FROM CHUTE WITH CONSIDERABLE FORCE

- CONTACT WITH THROWN OBJECTS CAN CAUSE SERIOUS PERSONAL INJURY.
- NEVER DIRECT DISCHARGE OPENING TOWARD BYSTANDERS.
- KEEP CLEAR OF DISCHARGE OPENING.

01-506-0290

EACH SIDE OF DISCHARGE CHUTE
(Part No. 01-506-0290)



NEAR BEARINGS & GREASE POINTS
(Part No. 01-506-0550)

! DANGER

**KEEP CLEAR
OF
DISCHARGE**

01-506-0300

ON DEFLECTOR
(Part No. 01-506-0300)

! DANGER

**ROTATING MEMBERS CAN CAUSE PERSONAL INJURY.
DO NOT OPERATE UNLESS SHIELD IS IN PLACE.**

01-506-0270

ON BEARING COVER
(Part No. 01-506-0270)



SPECIFICATIONS

CUTTER HEAD:	13" meter.	FEED PLATE:	Spring loaded, removable and adjustable.
CUTTER LENGTH:	12"		
BLADES:	(2), hi carbon steel, 12" long.	HITCH:	3 - Point
KNIFE SETTING:	0 to 3/8"	FEED:	With safety of spring loaded throwout clutch.
CAPACITY:	Roundwood - 6"	FEED STOP:	Patented safety throw-out stops feed almost instantly without stopping rotor
SPEEDS:	Normal Power: 2200 to 2500 RPM @ Normal Tractor PTO RPM: 535 - 560	BELT:	3/3V - 9.50 (Safety guarded).
FRAME:	Angular welded steel.	BEARINGS:	(4000 RPM) self sealed, self aligning.
HP REQUIRED:	25 - 100 HP.	WEIGHT:	Approx. 1200 lbs.

CONTROLS

THROWOUT HANDLE (Fig. 1)

The throwout handle is used to bring the feed plate up to the chipping position. When the handle is

engaged, the wood is fed through the chipper. In the disengaged position, the wood will stop feeding. The handle should lock over center to hold the engaged position while running.

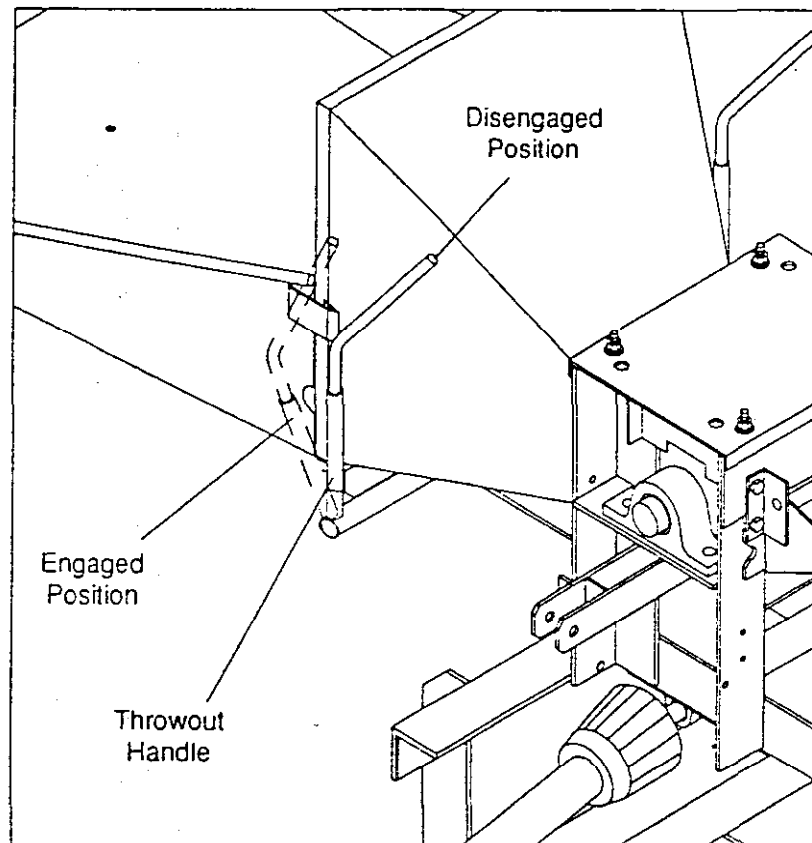


Figure 1

BEFORE OPERATING

ATTACH CHIPPER TO TRACTOR

IMPORTANT: The maximum PTO speed is 540 RPM. Do not operate at a faster speed because the drum, belts and PTO will be damaged.

1. Connect the PTO half (1-3/8" splined slip clutch) to the tractor. When new, the spring lock lever on the end of the PTO is hard to operate. Apply grease and work the lever until it snaps in and out freely. In the correct position the lever will spring back out and lock the two shafts together.



CAUTION

- The spring lever must be locked into position before operating.
- Failure to lock the spring lever will result in the PTO disconnecting from the tractor.

BEFORE OPERATING (Continued)

2. Lower the three point hitch arms on the tractor.
3. Position the chipper so that the three point hitch arms of the tractor line up with the main arms of the chipper.
4. Connect the two halves of the PTO and slowly slide the chipper toward the tractor.
5. Line up the three point arms and the stabilizer arm of the tractor with the chipper. Secure all arms with the tractor hardware.
6. Slowly, lower and raise the chipper to check the PTO length and proper ground clearance. Measure the distance from the bottom of the chipper to the ground. It should be between 14" and 22". On some tractors it may be necessary to shorten the PTO shaft. To shorten:
 - A. Lift the chipper until the two halves are fully contracted. Determine how much needs to be cut off to raise the chipper to the proper ground clearance.
 - B. Remove the tractor PTO half from the implement half.
 - C. Cut the pre-determined amount off with a handsaw.
 - D. Replace the PTO half on the tractor. Lock the spring lever into place.
 - E. Lift the chipper up and re-check PTO length.
 - F. Repeat steps B through D if the PTO length is still too long.

FILL TRACTORS FUEL TANK WITH GASOLINE

THE TORO COMPANY STRONGLY RECOMMENDS THE USE OF FRESH CLEAN, UNLEADED REGULAR GRADE GASOLINE IN TORO GASOLINE POWERED PRODUCTS. UNLEADED GASOLINE BURNS CLEANER, EXTENDS LIFE, AND PROMOTES GOOD START-

ING BY REDUCING THE BUILD-UP OF COMBUSTION CHAMBER DEPOSITS.

Note: Do not mix oil with gasoline. Never use methanol, gasoline containing methanol, gasohol, gasoline additives, premium gasoline, or white gas because engine/fuel system damage could result.



DANGER

Because gasoline is flammable, caution must be used when storing or handling it. Do not fill fuel tank while engine is running, hot or when machine is in an enclosed area. Vapors may build up and be ignited by a spark or flame source many feet away. **DO NOT SMOKE** while filling the fuel tank to prevent possibility of explosion. Always fill fuel tank outside and wipe up any spilled gasoline before starting engine. Use a funnel or spout to prevent spilling gasoline before starting engine and fill tank to about 1 inch (25 mm) below the filler neck. Store gasoline in a clean safety approved container and keep the cap in place on the container. Keep gasoline in a cool, well ventilated place; never in an enclosed area such as a hot storage shed. To assure volatility, do not buy more than a 30 day supply of gasoline.

Gasoline is a fuel for internal combustion engines; therefore, do not use it for any other purpose. Since many children like the smell of gas, keep it out of their reach because the fumes are explosive and dangerous to inhale.

1. Remove the cap from the fuel tank and fill the tank to within 1 inch (25 mm) from the top with unleaded gasoline. Install fuel cap tightly.
2. Wipe up any gasoline that may have spilled to prevent a fire hazard.

OPERATING INSTRUCTIONS

1. Lower the unit with the three point hitch arms of the tractor. Place the unit on a level surface.

2. Set discharge chute in position away from bystanders.

3. Place the Throwout handle in the disengaged position. See Fig. 1 in the Control section of this manual.

IMPORTANT: The maximum PTO speed is 540 RPM. Do not operate at a faster speed because the drum, belts and PTO will be damaged.


4. Start tractor engine and run at a low RPM. Slowly engage the PTO.

IMPORTANT: If the tractor does not have a two stage clutch or live PTO, engage the clutch slowly to prevent stalling of the engine. When stopping or turning, allow yourself some extra distance, as the impeller takes a few moments to stop and will continue to power the rear tires of the tractor.

5. Run tractor engine to 1100 RPM.

6. Engage the throwout handle to begin chipping.

CHIPPING MATERIAL

	DANGER
OBJECTS ARE DISCHARGED FROM CHUTE WITH CONSIDERABLE FORCE	
<ul style="list-style-type: none">• Contact with thrown objects can cause serious injury.• NEVER direct discharge opening toward bystanders.• Keep clear of discharge opening	

IMPORTANT: Always wear safety glasses, gloves and ear protection.

7. Before feeding wood into the chipper, be sure that the proper speed of approximately 2200 to

2500 RPM is reached.

8. Always feed the butt end first to eliminate dragging down of the engine.

9. For operator safety The TORO COMPANY strongly recommends the user wear loose lightweight gloves, hard hat, reinforced work boots and safety goggles.

10. Round materials up to approximately 6 or 7 inches may be fed into the chipper, however, the larger pieces will be fed more slowly.


11. When the chipper is in operation, approach it from the sides.

12. Do not feed metals, glass, etc. into the chipper. If these objects are fed into the chipper, simply engage the safety Throwout Handle and the feed will stop almost instantly.

13. Do not attempt to feed short pieces of material into the infeed chute. If short pieces are left in the feed area, let the next load carry them through.

14. **NEVER** hang onto the material while it is being fed into the infeed chute. Release the material as soon as the drum grabs it.

IMPORTANT: Do not raise the chipper more than 15 degrees above the horizontal position because the PTO may be damaged.

	DANGER
TO AVOID SERIOUS INJURY FROM BLADE CONTACT AND THROWN OBJECTS:	
<ul style="list-style-type: none">• NEVER operate this machine unless drum cover is securely fastened with locking nuts.• Drum may rotate for up to 5 minutes after engine is stopped.• NEVER open drum cover while drum is rotating.	

IMPORTANT: Always idle engine down to 750 RPM before disengaging the PTO.

LUBRICATION

BEARINGS (Fig. 2)

The chipper has four self sealing bearings that must be lubricated with a No. 2 Lithium based grease.

IMPORTANT: Lubricate the bearings to maintain a slight leakage on the seals. Too much grease can cause overheating.

GREASE FITTINGS (Fig. 2)

There is one grease fitting that must be lubricated with a No.2 Lithium based grease. Grease fittings every 100 hours of operation or as needed to maintain a slight leakage at the points.

PTO (Fig. 2)

Grease the PTO fittings weekly or every 40 operating hours. Use a No. 2 Lithium based grease.

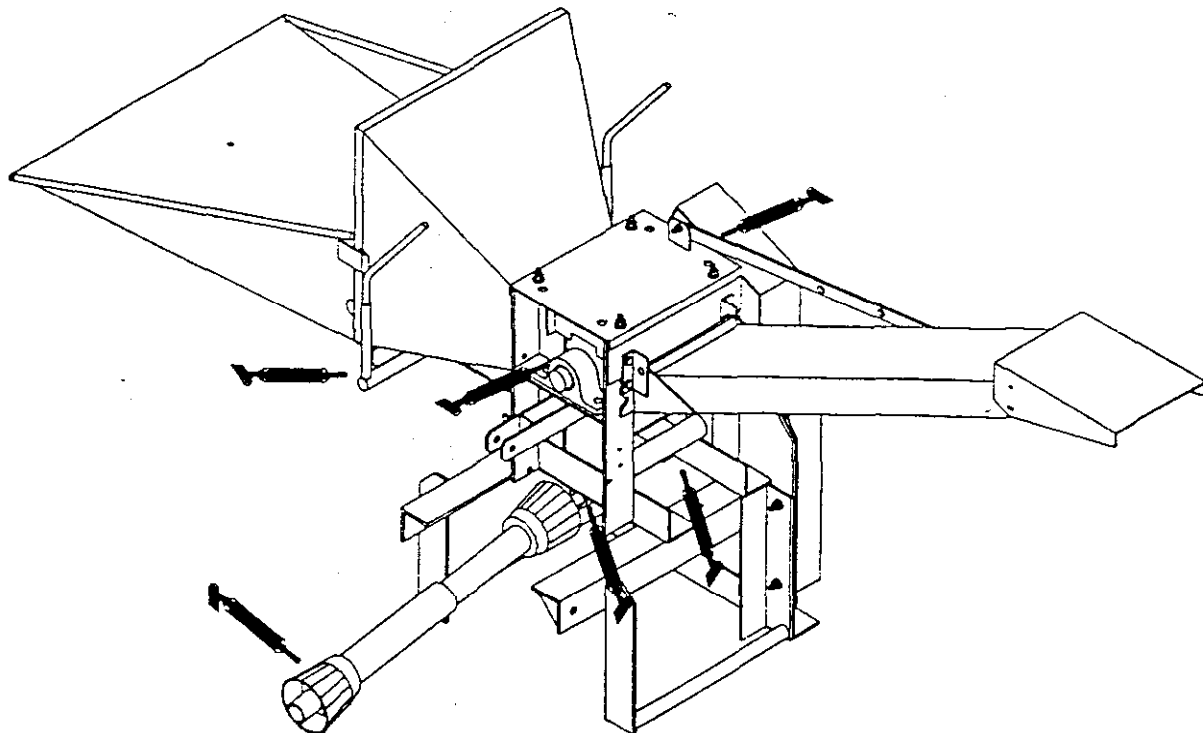


Figure 2

MAINTENANCE

CUTTER BLADES (FIG. 3)

The cutter blades are in sets of two and should be replaced together. Failure to do so can cause excessive vibration. The blades should be set at the same height. Use the gauge provided to check the blade settings.

To adjust the blades (C):

1. Loosen wedge bolts (D).
2. Turn the height adjustment screws (E) until the desired height is reached.
3. Tighten the wedge bolts.

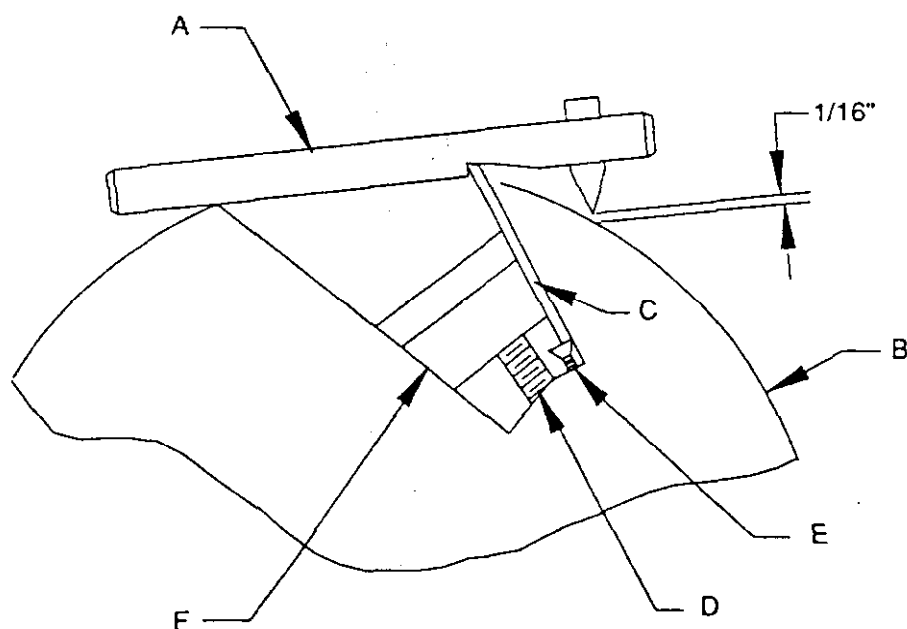
The blade height is set at the factory at approximately $1/16"$ as shown (use the feeler gauge to measure). This setting should take care of most types of brush. For heavier materials, a smaller setting would be used. To check the height, place the gauge against the cutter drum as shown with the notched section over the blade. To move upward, turn the height adjustment screws and measure the distance between the gauge and the drum to get the new setting.

When re-tightening the wedge bolts, use the following procedure:

- A. Torque the center bolt first to 75 ft. lbs.
- B. Torque both end bolts to 75 ft. lbs.
- C. Use a hammer and tap the wedge down. Re-torque bolts to 75 ft. lbs.
- D. Tap the wedge a second time with hammer.
- E. Re-torque to 80 ft. lbs for the last time.

The chart below gives the distance moved per revolution of the adjustment screws.

NO. TURNS	3/8" - 16 NC
1/4 turn	.015 (1/64")
1/2 turn	.032 (1/32")
3/4 turn	.047 (3/64")
1 turn	.062 (1/16")
1-1/4 turn	.078 (5/64")



- A - Blade Height Adj. Gauge
(12-005-0051)
- B - Drum
(12-005-0082)
- C - Cutter Blade
(01-283-0220)
- D - Wedge Bolt
(01-178-0816)
- E - Height Adj. Screw
(01-158-0020)
- F - Wedge
(12-004-1631)

Figure 3

MAINTENANCE (Continued)

IDLER TENSION (Fig. 4)

The tension on the belt is adjusted with the spring rod. Turn the jam nut on the end of the spring rod (POINT A) to change tension of the belt. A 1/4" deflection is recommended.

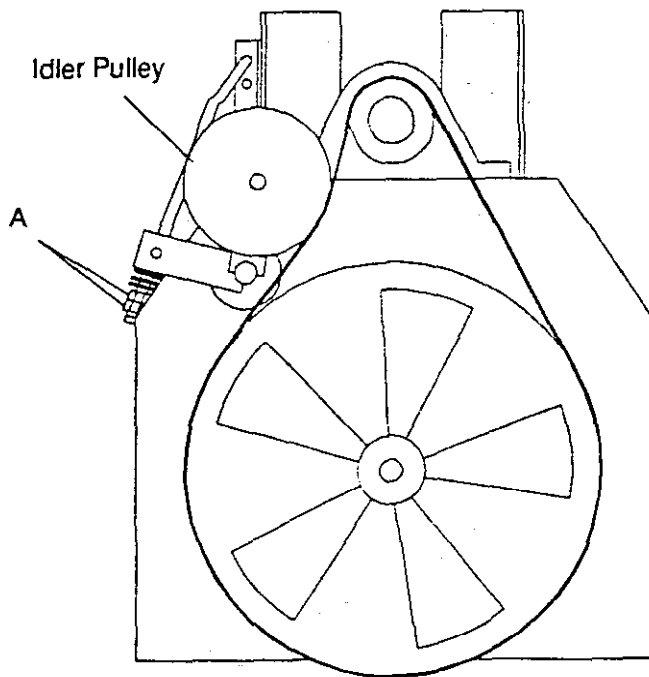


Figure 4

CUTTER BAR (Fig. 5)

("B" Adjustment) Loosen the three bolts (C) at the exhaust side of the cutter bar frame. Screw the adjustment bolts (D) to move the cutter bar up or down. Tighten the cutter bar bolts, lock the adjustment bolts.

NOTE: THE CUTTER BAR IS SET APPROX. .015" AT THE FACTORY WHICH SHOULD BE SATISFACTORY FOR MOST WORK. TO DO AWAY WITH ANY STRINGING MATERIALS, ADJUST THE CUTTER BAR TO APPROX. .005" FROM THE CUTTER BLADES.

FEED PLATFORM (Fig. 5)

("A" Adjustment) The adjustment bolts (E) are located under both sides of the platform. The distance is set at the factory at approximately 3/16" from the cutter blades. This distance is adjustable from approximately .030" to .250".

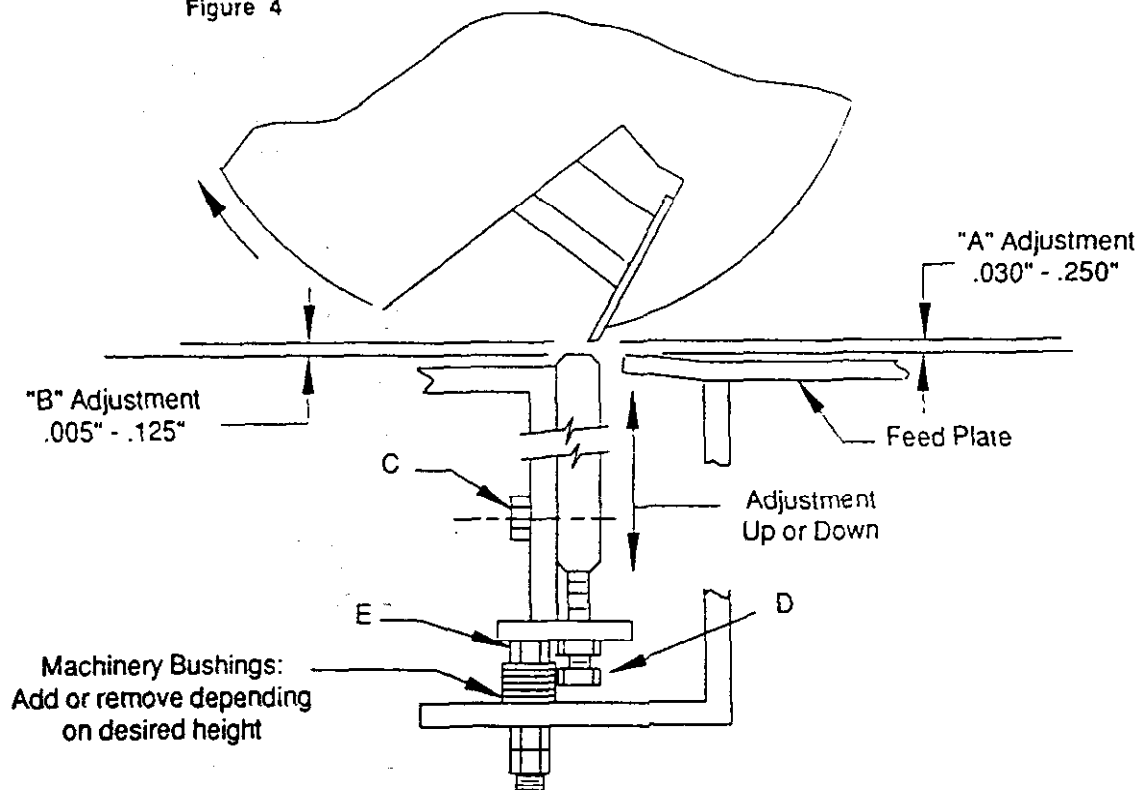


Figure 5

MAINTENANCE (Continued)

FEED PLATFORM SPRING

The spring is located under the cutter head frame. To adjust the tension on the platform, rotate the nut on top of the spring. Do not remove the double nut at the bottom.

NOTE: THE TENSION APPLIED TO THE FEED PLATFORM SPRING IS IMPORTANT TO THE OPERATION OF THIS MACHINE. FOR LOWER HORSEPOWER UNITS, THE SPRING WILL HAVE A LIGHTER SETTING; FOR HIGHER HORSEPOWER UNITS, THE TENSION CAN BE INCREASED. THE TENSION IS SET AT THE FACTORY AND SHOULD BE SATISFACTORY FOR MOST OPERATIONS. AS THE SPRING WEARS, ROTATE THE NUT ON TOP OF THE SPRING.

1. The Throwout Handle is adjusted so the handle is pulled down with an easy motion and locks over center.

2. If the handle fails to lock over center or will not remain in the correct position, adjust with the nuts on the end of the rod until correct adjustment is achieved.

BLADE SHARPENING (Fig. 6)

It is very important to keep the blades sharp. If the chipper is not feeding properly, the blades are probably dull. The blades are in sets of two or four and should be kept together.

1. Unhook the exhaust chute from the top cover. Remove the cover from the chipper head.

2. Remove the bolts from the wedge, knock the wedge loose, remove the blades.

3. The blades are ground on a 51 degree bevel. If worn beyond 1-1/2", they should also be replaced.

4. Check the blade height with the gauge provided. See Fig. 3.

5. Adjust the feeder platform and cutter bar if needed. See Fig. 5.

6. Replace the top cover and attach the exhaust chute.

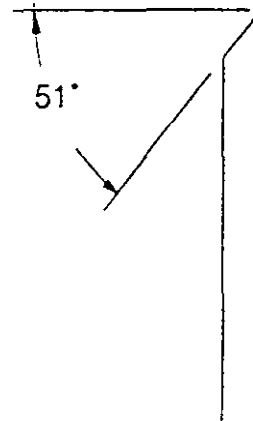


Figure 6

REPLACING THE CUTTER BLADES

1. Unhook the exhaust chute from the top cover. Remove the top cover from the chipper head.

NOTE: STEPS 2 AND 3 CAN BE OMITTED EXCEPT WHEN THE BLADE DEPTH IS TO BE CHANGED.

2. Lower the feed platform by engaging the safety throw-out device. Pull lever until it locks over center.

3. Lower the cutter bar.

4. Remove the wedge bolts. Loosen the wedge and remove the cutter blades.

5. Clean the new blades, wedge and drum before installing.

6. Install new blades. The sharp edge of the blade should be on the wedge side. Set the blade height at 1/16" with the height adjustment gauge.

7. Install the wedge and fasten with 1/2" - 13 x 2" hex head capscrew grade 5. Torque center bolt first to 75 ft. lbs. Torque outside bolts to the same.

MAINTENANCE (Continued)

8. Tap the wedge down with a bar or hammer and re-torque to 80ft. lbs. Tap the wedge a second time with the bar. Re-torque to 75 ft. lbs. for the last time.

9. Adjust the feed platform. (See Fig. 5)

10. Adjust the cutter bar. (See Fig. 5)

BLADE SHARPENING MAINTENANCE

The life of the chipper blade is determined by the time and care spent in keeping the cutting edges sharp. Its life between, regrinds and the quality of work it turns out depends largely on the care taken in resharpening. Maintenance of the chipper blades should be a high priority to add longer life and superior performance, which in turn lowers cost.

The blade is no better than its cutting edge. Dull blades are caused by:

1. Stopping the feed of the wood and allowing the blades to rub against the unfed wood.
2. Excessive resin or glue on material being cut.
3. Feed speed too slow for chipping machine speed.
4. Use of wrong cutting angles and bevels.
5. Improper care of blades.

6. Long overdue blade changes.

7. Poor grinding procedures.

When sharpening the blades there are a few procedures to follow to get the best performance out of the blades.

1. Keep the grinding wheel speed between 3500 and 4500 RPM. The depth of each cut should be no more than .002 with each pass.

2. More blades are ruined by excessive heat during grinding than any other cause. Excessive heat can be caused by excessive speed, insufficient cooling and the grinding wheel being too hard.

3. The grinding wheel should be a SA-46-G8-VI or equivalent. Meaning: SA(abrasive-friable aluminous oxide), 46(grain size-medium), G(hardness-soft), 8(structure-open), VI(bond-vitrified).

4. After grinding, the blades should be honed to remove the wire or feather edge left by the grinding wheel.

5. Follow the specifications listed in the manual on the degree to sharpen and the length at which the blade can no longer be used.

6. When replacing the blades with new blades, always replace every blade. When resharpening the blades should be kept as close as possible to the same length. Various lengths of blades could result in a drum that is out of balance.

TROUBLE SHOOTING

CONDITION	CAUSE	CORRECTION
DOES NOT FEED AND KICKS BACK MATERIAL	<ul style="list-style-type: none"> • Feed plate lever not engaged. • Check blades, probably dull. • Blades may be sharpened at the wrong angle. • Blades could be installed backwards. 	<ul style="list-style-type: none"> • Pull lever until locked over center. • Sharpen or replace blades. • See blade sharpening procedure in manual. • See pictorial view in maintenance section.
STRINGY MATERIAL OR LARGE CHIPS BEING EJECTED	<ul style="list-style-type: none"> • Improper cutter bar adjustment. 	<ul style="list-style-type: none"> • Move cutter bar closer to the blades. See maintenance section.
DRUM NOT ROTATING	<ul style="list-style-type: none"> • Check PTO, shear bolt may be sheared. • Drive belt could be broke. • Check sheaves. If rotating, a key may be sheared. • Check drum for material wedged between blade and feed plate. 	<ul style="list-style-type: none"> • Replace shear bolt. Use Grade 5 bolt only. • Replace belt. • Replace key. • Clean out any objects inside housing.
EXCESSIVE VIBRATION	<ul style="list-style-type: none"> • Drum has one new blade and one used blade on it. • Bearings on drum shaft may be damaged. Check for excessive heat on bearings. 	<ul style="list-style-type: none"> • When replacing blades always replace both blades. • Replace bearings.

STORAGE

1. Thoroughly clean the chipper so it is free of dirt, leaves and debris.
2. Inflate tires to 50 PSI.
3. Check all fasteners. Tighten as necessary.
4. Grease or oil all grease fittings and bearings. Wipe off excess lubricant.
5. Check the tension and condition of the drive belts.
6. Grease and check the condition of the PTO.
7. Remove the blades and sharpen them.
- 8.

IDENTIFICATION AND ORDERING

MODEL AND SERIAL NUMBER

The COMMERCIAL CHIPPER 1200 has two identification numbers: a model and serial number. The two numbers are stamped on a plate riveted to the drum cover. In any correspondence concerning the COMMERCIAL CHIPPER 1200, supply model and serial numbers to be sure that the correct information and replacement parts are obtained.

To order replacement parts from an authorized TORO Distributor, supply the following information.

1. Model and serial numbers of the machine.
2. Part number, description and quantity of parts desired.

Note: Do not order by reference number if a parts catalog is being used; use the part number.

MAINTENANCE CHART

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10

MAINTENANCE CHART

[illegible]

The Toro Promise

A ONE YEAR LIMITED WARRANTY

The Toro Company promises to repair your TORO Product if defective in materials or workmanship. The following time periods from the date of purchase apply:

Commercial Products 1 Year

The costs of parts and labor are included, but the customer pays the transportation costs on walk rotary mowers with cutting widths of less than 25".

If you feel your TORO product is defective and wish to rely on The Toro Promise, the following procedure is recommended:

1. Contact your Authorized TORO Distributor or Commercial Dealer (the Yellow Pages of your telephone directory is a good reference source).
2. The TORO Distributor or Commercial Dealer will advise you on the arrangements that can be made to inspect and repair your product.
3. The TORO Distributor or Commercial Dealer will inspect the product and advise you whether the product is defective and, if so, make all repairs necessary to correct the defect without an extra charge to you.

If for any reason you are dissatisfied with the distributor's analysis of the defect or the service performed, you may contact us.

Write:

TORO Commercial Products Service Department
100 Industrial Parkway
Industrial Airport, Ks. 66031

The above remedy of the product defects through repair by an Authorized TORO Distributor or Commercial Dealer is the purchaser's sole remedy for any defect.

THERE IS NO OTHER EXPRESS WARRANTY. ALL IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR USE ARE LIMITED TO THE DURATION OF THE EXPRESS WARRANTY.

Some states do not allow limitations on how long an implied warranty lasts, so the above limitation may not apply to you.

This Warranty applies only to parts or components which are defective and does not cover repairs necessary due to normal wear, misuse, accidents, or lack of proper maintenance. Regular, routine maintenance of the unit to keep it in proper condition is the responsibility of the owner.

All warranty repairs reimbursable under the Toro Promise must be performed by an Authorized TORO Commercial Dealer or Distributor using Toro approved replacement parts.

Repairs or attempted repairs by anyone other than an Authorized TORO Distributor or Commercial Dealer are not reimbursable under the Toro Promise. In addition, these unauthorized repair attempts may result in additional malfunctions, the correction of which is not covered by warranty.

THE TORO COMPANY IS NOT LIABLE FOR INDIRECT, INCIDENTAL OR CONSEQUENTIAL DAMAGES IN CONNECTION WITH THE USE OF THE PRODUCT INCLUDING ANY COST OR EXPENSE OF PROVIDING SUBSTITUTE EQUIPMENT OR SERVICE DURING PERIODS OF MALFUNCTION OR NON-USE.

Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you.

This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

COUNTRIES OTHER THAN THE UNITED STATES OR CANADA

Customers who have purchased TORO products exported from the United States or Canada should contact their TORO Distributor (Dealer) to obtain guarantee policies for your country, province or state. If for any reason

you are dissatisfied with your Distributor's service or have difficulty obtaining guarantee information, contact the TORO importer. If all other remedies fail, you may contact us at The Toro Company.