OWNER'S GUIDE

Model No. 120-550

10 CENTS

Self-Propelled ROTARY MOWER

WARRANTY

For one year from date of purchase, MTD Products, Inc., will replace for the original purchaser, free of charge, F.O.B. factory or authorized service firm, any part or parts found to be defective in material or workmanship. All transportation charges on parts submitted for replacement under this warranty must be paid by the purchaser. This warranty does not include replacement of parts which become inoperative through misuse, excessive use, accident, neglect, improper maintenance or alterations by unauthorized persons. This warranty does not include the engine, motor, battery, battery charger or any component parts thereof. For service on these units refer to the applicable manufacturer's warranty.

The above warranty will apply only to the original owner and will be effective only if the warranty card has been properly processed. It will not apply where the unit has been used commercially.

Warranty service is available through your local authorized service dealer or distributor. UNDER NO CIRCUMSTANCES WILL THE RETURN OF A COMPLETE UNIT BE ACCEPTED BY THE FACTORY UNLESS PRIOR WRITTEN PERMISSION HAS BEEN EXTENDED.

SAFETY RULES

Your rotary mower is a precision piece of power equipment, not a plaything. Therefore exercise extreme caution at all times.

1. Remove all sticks, stones, wire and other hazardous items from lawn before mowing. Such items are dangerous to both the mower and individuals in the vicinity of the mower.
2. Always disconnect spark plug cable during repairs or refueling operations.
3. Always start engine from side opposite discharge chute.
4. NEVER place hands or feet under mower or near discharge chute while engine is running.
5. Do not tilt mower at extreme angle while engine is running. Cut grass on hills and banks sideways, not up and down.
6. Always stop engine when not cutting grass.
7. Do not fill gas tank while engine is running. Do not spill gasoline on hot engine.
8. Keep children and pets away from area at all times during mowing operation. Never allow mower to discharge grass toward any person.
9. Do not attempt to start engine while mower is resting in high grass.
10. Check all nuts and bolts, particularly the blade bolts, for tightness. This is especially important during the initial operation period. Make this same check periodically thereafter.

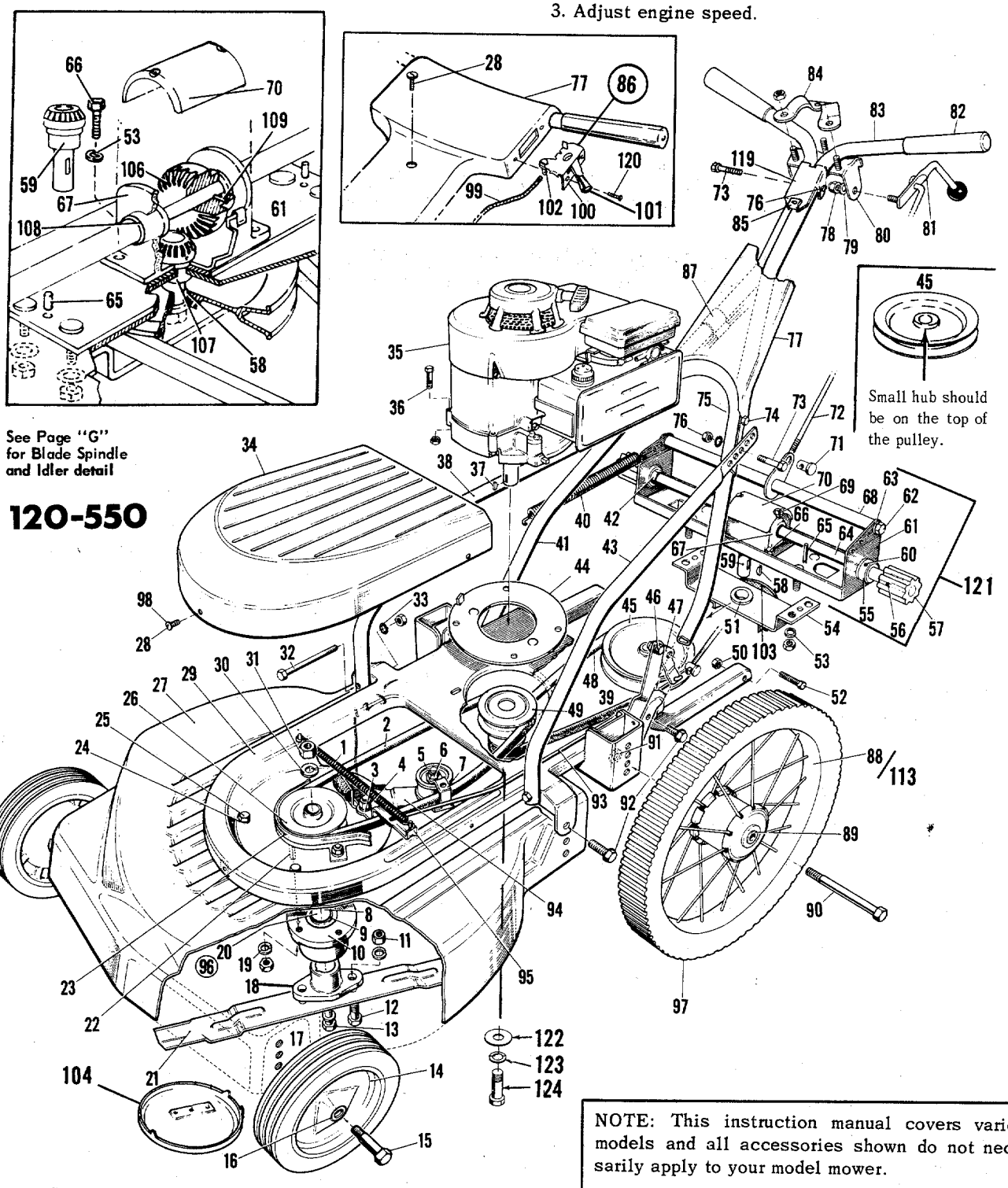
NOTE: Should excessive vibration develop, check your blade and crankshaft immediately. Do not operate mower with an unbalanced blade, a damaged blade or a damaged crankshaft.

MTD PRODUCTS INC • 5389 WEST 130th ST. • P.O. BOX 2741 • CLEVELAND, OHIO 44111

FORM NO. 770-2420A

Gear box is lubricated with two ounces of Alduralube Heavy. Order by part number 727-111

NOTE: To engage the blade with the engine running . .
1. Move the throttle control lever to "FAST" position.
2. Engage the blade engagement lever SLOWLY
3. Adjust engine speed.



See Page "G" for Blade Spindle and Idler detail

120-550

NOTE: Set screws in pulleys are treated with a nut and bolt sealant. Remove with Allen wrench while applying heat with a small torch. Sealant disintegrates at 400°.

NOTE: This instruction manual covers various models and all accessories shown do not necessarily apply to your model mower.

NOTE: This instruction manual covers various models and all accessories shown do not necessarily apply to your model mower.

MTD PRODUCTS INC extends its warranty only on the mower. If repairs or service is needed on the engine, please contact your nearest authorized engine service outlet. Check the "Yellow Pages" of your telephone book under "Engines-Gasoline".

PARTS LIST FOR MOWER MODEL NO. 120-550

Ref. No.	Part No.	DESCRIPTION
1	732-158	Blade Tension Spring
2	754-109	V Belt – 1/2–43 Gates *
3	736-300	Flat Washer 3/8 I.D. *
4	710-373	Shoulder Bolt – Special
5	756-370	Idler Bearing Assembly
6	712-372	Centerlock – Hex Nut 5/16–18 Thd.*
7	310-7353	Bracket – Belt
8	711-212	Sleeve
9	741-120	Bearing – Upper
10	719-120	Spindle Housing
11	712-123	Hex Nut 5/16–24 Thd.*
12	710-117	Hex Hd. Cap Screw (heat treated) 5/16–24 x 1 lg.
13	710-113	Hex Hd. Cap Scw. 3/8–24 x 1-5/8 lg.*
14	501-9383	Wheel Assembly – 8" – B.B.
15	738-213	Axle Bolt – 5/8 lgth. Thd.
16	741-114	Ball Bearing
17	736-169	Spring Lockwasher – 3/8 Screw *
18	748-100	Blade Adapter
19	736-119	Spring Lockwasher – 5/16 Screw*
20	711-240	Spindle
21	312-7581	Blade – 22"
22	710-122	Hex Hd. Cap Scw. – 5/16–24 x 1 lg.*
23	395-8324	Belt Guard
24	300-8809	Reinforcement Plate
26	310-9925	Pulley – 4"
27	395-8756	Deck Assembly – 22"
28	710-473	Truss Hd. Mach. Scw. 10–24 x 1/2 lg.*
29	395-8279	Frame Assembly
30	736-921	Spring Lockwasher – 1/2 Screw*
31	712-922	Hex Jam Nut – 1/2–20 Thd.*
32	710-102	Hex Hd. Cap Scw. 1/4–20 x 2-1/2 lg.*
33	736-222	Ext. Lockwasher – 1/4 Screw *
34	395-8295	Blade Spindle Cover
35	—	Engine
36	710-158	Hex Hd. Cap Scw. 5/16–24 x 1-1/4 lg.*
37	714-365	Key – Hi Pro #505
38	310-8328	Handle Support – Lower R.H.
39	736-108	Washer – Flat – 33/64 I.D.*
40	732-137	Extension Spring
41	310-8334	Handle – Lower
42	748-227	Bearing – Drive Shaft – Hex
43	310-8327	Handle Support – Lower L.H.
44	395-8325	Belt Trap Assembly
45	300-9927	Pulley – 5-1/2"
46	738-234	Pivot Screw
47	310-9372	Pivot Bracket
48	754-121	V Belt – 1/2–31.8 H.R. Gates*
49	756-924	Pulley – 2 Step B & S
50	712-430	Elastic Stop Nut – 3/8–16 Thd.*
51	748-226	Bearing – Pinion Shaft – Hex
52	710-235	Hex Hd. Cap Screw (heat treated) – 3/8–16 x 2 lg.*
53	736-329	Spring Lockwasher – 1/4 Screw *
54	395-8774	Bottom Frame
55	711-169	Collar
56	715-247	Roll Pin – 3/16 x 1 lg.
57	305-7120	Drive Pinion
58	714-229	Key – Woodruff #2
59	901-7957	Pinion Assembly – Complete
60	710-421	Allen Set Scw. 5/16–18 x 1/4 lg.*
61	395-8290	Top Drive Frame Assembly
62	710-121	Hex Hd. Cap Scw. 1/2–20 x 3/4 lg.*
63	736-114	Int. Lockwasher – 1/2 Screw *
64	310-8348	Drive Shaft – 22"
65	715-248	Roll Pin – 3/16 x 3/4 lg.*
66	710-289	Hex Hd. Mach. Scw. 1/4–20 x 1/2 lg.*
67	310-8189	Gear Box
68	310-8331	Pull Bar Assembly
69	710-148	Hex Hd. Thd. Cutting Screw 8–32 x 3/8 lg.*
70	395-8187	Cover Gear Box
71	711-179	Ferrule
72	711-180	Control Rod
73	710-606	Hex Hd. Cap Scw. 1/4–20 x 1-1/2 lg. *
74	710-106	Hex Hd. Cap Scw. 1/4–20 x 1-1/4 lg.*
75	712-287	Hex Nut 1/4–20 Thd. *
76	712-107	Centerlock Hex Nut – 1/4–20 Thd.*
77	395-9366	Control Panel – Dual
78	712-324	Elastic Stop Nut 1/4–20 Thd.*
79	736-325	Flat Washer .265 I.D.*
80	310-8376	Lockout Bracket Assembly
81	310-8373	Lockout Lever Assembly
82	305-7072	Grip – White
83	310-9364	Handle – Upper
84	310-8378	Clamp Bracket
85	712-526	Speed Nut – 10–24 Thd. *
86	310-8357	Control - Throttle Complete
87	746-145	Cable Clip
88	734-180	Wheel Assembly – 16" less tire
89	741-113	Ball Bearing
90	738-114	Axle Bolt
91	736-105	Belleville Washer
92	710-209	SEMS Hex Hd. Cap Scw. 3/8–16 x 5/8 lg.*
93	310-9373	Control Rod
94	310-8298	Idler Bracket Assembly w/Brake
95	310-9371	Brake Lever
96	901-7805	Blade Spindle Assy. – Complete H.W.
97	734-178	Tire – Gear Tread 16 x 1.75
98	736-147	Ext. Lockwasher – #10 Screw *
99	732-139	Conduit & Wire 37–1/2 x 39-13/16 (Throttle)
100	310-8508	Control Bracket Assembly – Throttle
101	305-7470	Knob
102	901-7627	Ferrule Assembly – Complete (not shown)
103	395-8772	Pulley Cover
104	312-7919	Anti Scalp Plate – 8-1/2"
106	748-135	Bevel Gear
107	748-108	Flange Bearing
108	748-110	Flange Bearing
109	715-246	Roll Pin 3/16 x 1-1/4 lg.
110	710-938	Allen Set Screw 1/4–28 x 1/4 lg. – (not shown) *
111	741-107	Bearing – Lower
113	501-8761	Wheel Ass'y – Rear Complete
114	736-154	Washer
115	721-105	Seal
116	737-479	Zerk Fitting
117	728-649	Rivet (2 req'd)
118	754-647	Brake Shoe
119	310-7861	Clamp Bracket
120	710-148	Thd. Cut. Screw #8–32 x 3/8 lg.*
121	901-8874	Drive Mechanism – Complete
122	310-7386	Washer
123	736-169	Spring Lockwasher 3/8"
124	710-152	Hex Hd. Cap Scw. 3/8–24 x 1 lg.
	727-111	Alduralube Heavy – 2 ounces
125	712-438	Elastic stop nut 3/8-16

* For faster service obtain standard nuts, bolts, and washers locally. If these items cannot be obtained locally, order by part number and size as shown on parts list.

ASSEMBLY INSTRUCTIONS

NOTE: Follow instructions starting with number 1 and continue through number 10.

8. Fasten control panel to upper handle with cap screws and locknuts at lower holes and truss head screw through upper hole. Tighten all nuts and bolts.

7. Assemble throttle control to handle panel with two sheet metal screws.

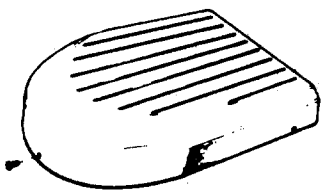
5. Assemble speed nut to clamp bracket. Assemble clamp bracket to upper handles with long yellow bolt and nut as shown.

6. Assemble lockout bracket assembly to upper handle. Tighten nuts securely.

2. Assemble upper handle parts with cap screws and locknuts as shown.

9. Both handles, control rods and ferrules are identical.

BLADE SPINDLE COVER



SELF-PROPELLED DRIVE

a) Insert ferrule in Self-Propelled Drive Mach. Bracket from the left.

b) Screw control rod in ferrule.

c) Assemble handle to control rod as shown.

d) Check the distance between the drive pinions and the rear tires. When the lock out handle is in the "OFF" position the clearance should be 1/8 to 1/4 inch. Screw ferrule in or out to obtain this clearance. More than 1/4 inch clearance will cause excessive belt wear.

e) Assemble handle to bracket with nut as shown. Handle must move freely.

4. Assemble upper handles and lower handle supports to lower handle assembly with cap screws and locknuts. Position supports for most convenient height. Use lower holes only.

1. Fasten lower handle assembly to frame assembly with SEMS cap screws.

1/8-1/4"

3. Attach lower handle supports to frame assembly with cap screws, lockwashers and hex nuts.

10. Blade Engagement Assembly

a) Remove Blade Spindle Cover by removing three screws.

b) Move brake lever to rear position so *belt is slack.*

c) Insert ferrule into blade bracket assembly from the left.

d) Screw rod into ferrule.

e) Assemble control handle to control rod as shown.

f) Adjust control rod. A slight pressure should be needed to operate lockout lever. Too much pressure can break lever assembly or control rods. Readjust control rods if pressure is too great.

g) Replace Blade Spindle Cover.

OPERATION

1. Before starting engine, check LUBRICATION INSTRUCTIONS.
2. Check lockout control handles for proper operation. If too great a pressure is needed to operate these controls, damage can be done to both the mechanism and the rods. Readjust so only slight pressure is needed to operate both the blade engaging control and the self-propelled lockout control. See ASSEMBLY INSTRUCTIONS Step 9 and 10.
3. Service engine with gasoline and oil. See engine instructions for complete care and maintenance of engine. READ DIRECTIONS CAREFULLY.
4. Be sure engine crankcase is filled to capacity with proper grade of oil.
5. Move both control handles to "OFF" position.
6. Move throttle control lever to "Choke" position.
7. Crank engine. Move throttle control lever to "Fast" position as soon as engine fires. Use choke as needed to keep engine running during warm up period.
8. Put blade into motion by moving blade control handle to "On" position.
   To engage the blade with the engine running . . .
   a. Move the throttle control lever to "Fast" position.
   b. Engage the blade engagement handle SLOWLY.
   c. Adjust engine speed.
9. The mower is put into self-propelled operation by moving the lockout control handle to "On" position. It is necessary to disengage self-propelled handle when steering mower around objects or when turning corners. For smoother operation, it is suggested that the mower be given a push forward as the self-propelled handle is engaged.
10. A brief break-in period is essential to insure maximum engine and mower life. This consists of running the engine a half speed for a period of time required to use one tank of gasoline. It is also recommended to change crankcase oil after the first five hours of operation or as operating conditions dictate. Always check oil before operating the mower. BE SURE CRANKCASE IS FULL.
11. Proper lubrication must be maintained at all times.
12. Appropriate clothing should be worn when cutting brush or heavy weeds. Safety shoes and safety glasses are highly recommended.
13. The engine is stopped by moving the throttle control lever to "STOP" position.

ADJUSTMENT

1. Handles may be adjusted by changing the position of the lower support mounting holes. When this change is made, it may also be necessary to check the adjustment of both control rods. See Step 9 and 10 in ASSEMBLY INSTRUCTIONS.
2. Control rod adjustments are made as shown in ASSEMBLY INSTRUCTIONS Steps 9 and 10.
3. Cutting height adjustment is made by removing and moving axle bolts to the desired positions. Cutting height will be raised as axle bolts are moved to lower mounting holes and lowered as axle bolts are moved to higher mounting holes. All axle bolts must be mounted in the same relative position to the deck. When wheels are mounted to the deck, the *crown shape washers must be assembled with the crown away from the deck.* This is necessary to prevent the axle bolts from loosening.
4. Self-propelled belt adjustment can be made by loosening and moving engine as needed. If engine is removed, caution should be exercised when engine is replaced. The belt trap (Ref. No. 44) should be positioned with the tab located in the fifth mounting hole in the engine base. The other four holes are used for the engine mounting bolts.
5. If throttle adjustment becomes necessary, the throttle control wire may be reset as follows:
   a. Loosen, but do not remove, screw securing throttle control wire assembly at engine.
   b. Move throttle control lever on handle to "Choke" position.
   c. Move lever to which control wire is fastened to engine to full choke position. Retighten screw to secure throttle control wire assembly.

LUBRICATION

Important: Always stop engine and disconnect spark plug wire before cleaning, lubricating or doing any kind of work on the lawn mower.

1. Wheel bearings are ball bearings. Use SAE 30 engine oil.
2. Throttle – Periodically lubricate throttle control lever and entire length of throttle wire assembly with a few drops of SAE 30 engine oil for ease of operation.
3. Engine – Follow engine manual for lubrication instructions. Check oil level before each mowing.
4. Gear Box – Check lubricant in the Self-Propelled Drive Gear Box. This must be maintained half full at all times and should be checked after each 25 hours of operation. The gear box is packed at the factory with alduralube heavy or Temprite No. 2. It is suggested that this or an equivalent type and quality fibrous high heat wheel bearing grease be used in maintaining this mechanism. Grease can be ordered from the factory by part number 727-111. Horizontal bronze bearings under the Self-Propelled Drive should be lubricated with SAE 30 engine oil.
5. Friction point between idler bracket assembly (Ref. No.94) and deck should be greased once each season with a multi-purpose grease.

6. Blade Spindle Assembly – The Blade Spindle Assembly is equipped with a grease fitting. Use grass discharge chute for access to the fitting located under the deck. Use multi-purpose grease. Lubricate PRIOR to initial use and every 25 hours thereafter. **Caution:** Be sure spark plug wire is disconnected and grounded. See page "H" for location of grease (Zerk) fitting.

MAINTENANCE

Important: Always stop engine and disconnect spark plug wire before cleaning, lubricating or doing any kind of work on the lawn mower.

1. Cutting Blade – Remove all nuts and bolts holding the blade to the blade hub.
   When sharpening blade, follow the original angle of grind as a guide. It is extremely important that each cutting edge receives an equal amount of grinding to prevent an unbalanced blade. An unbalanced blade will cause excessive vibration when rotating at high speeds and may cause damage to the mower. Upon reassembling, make certain all parts are assembled properly and tightened securely.
2. Deck – The underside of mower deck should be cleaned after each period of use as grass clippings, leaves, dirt and other matter accumulates. This accumulation of grass clippings, etc. is undesirable as it will invite rust and corrosion and may cause an uneven discharge of grass clippings at next cutting.
   The deck may be cleaned by tilting the mower backward or on its right side and scraping clean with a suitable tool or by washing with a stream of water from a garden hose. **Caution:** Do not direct the stream of water at a hot engine as damage to the engine may result.
3. Pinions – Wash wheels and pinions after each mowing. Removal of matted grass and soil from these parts will increase the service life of these parts.
4. Blade belt replacement may be made as follows:
   a. Remove blade spindle cover.
   b. Remove front belt guard.
   c. Remove blade tension spring.
   d. Loosen nut on belt bracket of idler bearing assembly.
   e. Remove brake lever assembly.
   f. Remove self-propelled drive belt from engine pulley.
   g. Remove damaged or worn blade belt.
   h. Place new belt on engine pulley. Do not bend belt guard pins. Belt should be inside of pins.
   i. Replace self-propelled drive belt on engine pulley.
   j. Work belt to front and mount on blade spindle pulley. Replace front belt guard.
   k. Replace brake lever assembly.
   l. Slip belt on idler pulley between pulley and belt bracket.
   m. Replace blade tension spring.
   n. Move blade lockout handle to "ON" position.
   o. Position belt bracket on idler pulley to clear the tightened belt. Secure belt clip in position. See drawing page "G".
   p. Replace blade spindle cover.

   NOTE: Belt must clear all guards and clips when blade lockout handle is in "ON" position.

5. Drive belt replacement may be made as follows:
   a. Remove bottom frame assembly (Ref. No. 54).
   b. Drop pulley from pinion shaft.
   c. Remove and replace drive belt.
   d. When replacing pulley, be sure key is in place on pinion shaft and that the large surface of pulley hub is down.
   e. Replace bottom frame assembly.

   NOTE: Belt must clear all guards when self-propelled lockout handle is in "ON" position.

6. Storage – The following steps should be taken to prepare the lawn mower for storage:
   a. Clean and lubricate mower thoroughly as described in the preceeding instructions.
   b. Refer to engine manual for correct engine storage instructions.
   c. Coat mower's cutting blade with multi-purpose grease to prevent rusting.
   d. Place blocks under deck to raise tires clear of floor.

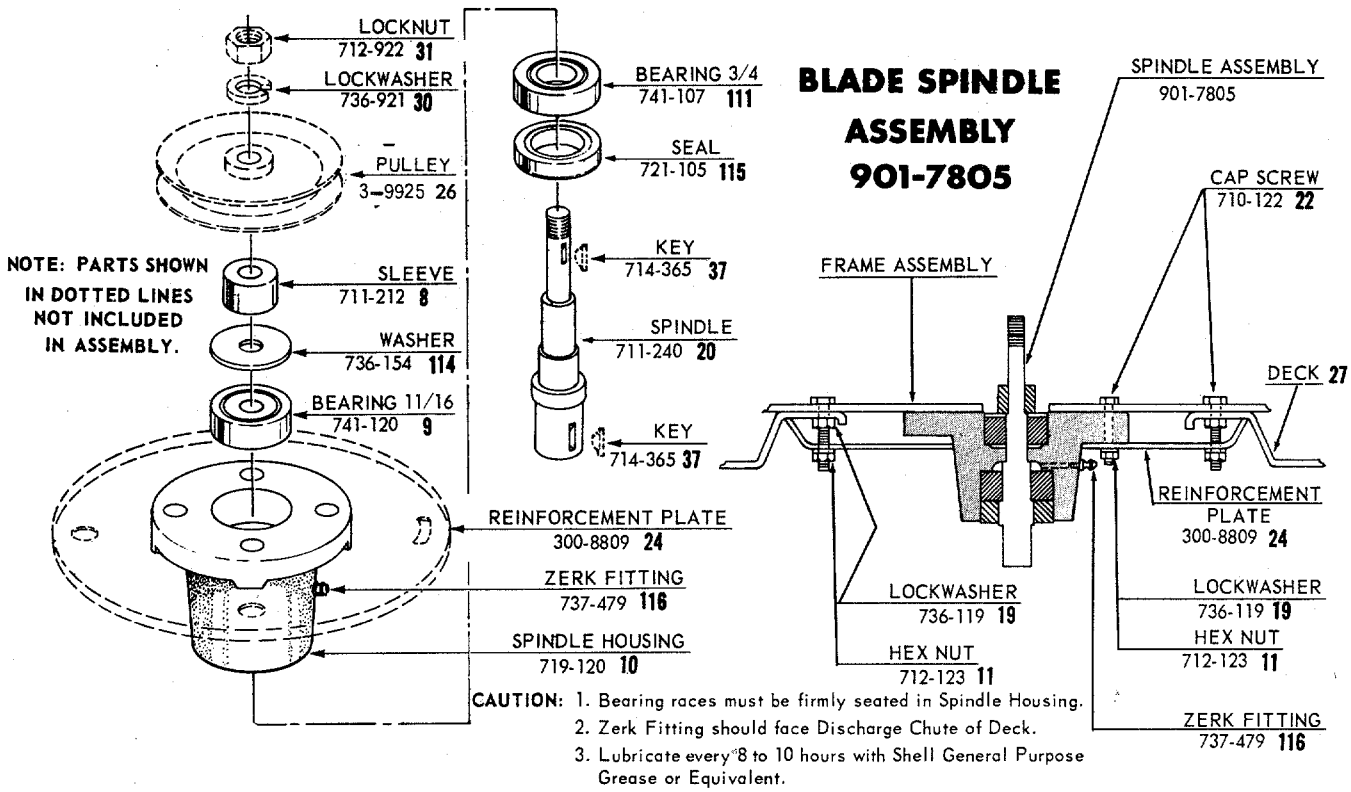
USING YOUR ROTARY MOWER

For best results do not cut wet grass because it tends to stick to the underside of the mower, thus preventing proper discharge of grass clippings. If wet grass must be cut, reduce engine speed to help distribute the clippings more effectively.

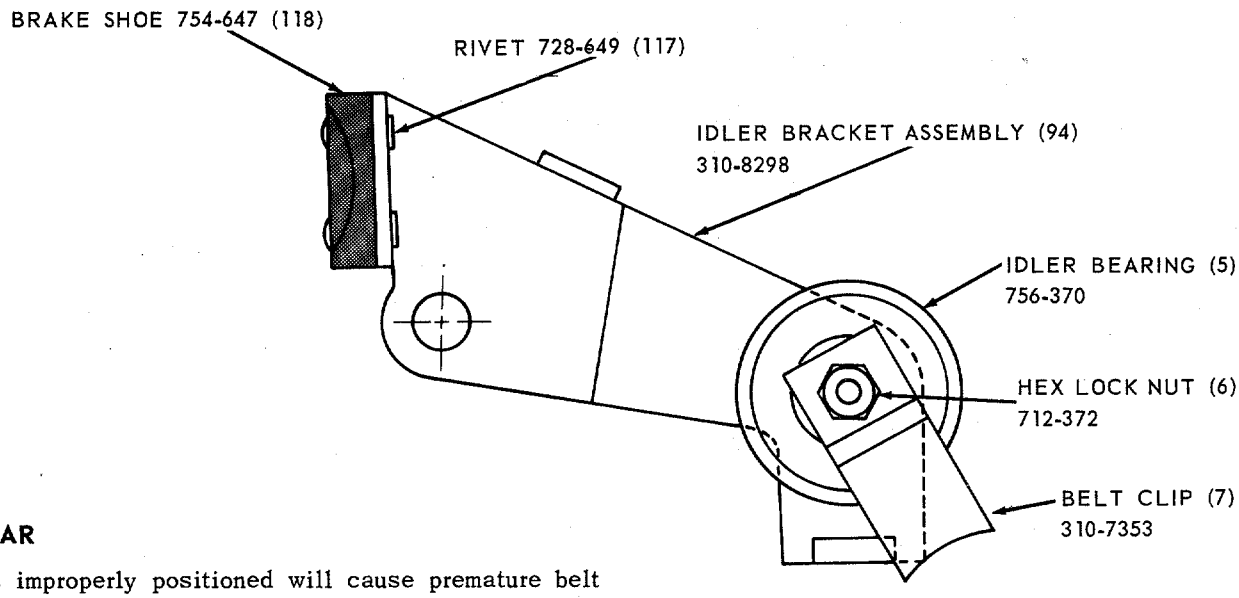
New grass should be treated as wet grass, otherwise a normal walking speed is about the right pace for efficient mowing.

The best mowing pattern is one that allows the clippings to discharge towards the uncut part of the lawn. This permits recutting of the clippings to further pulverize them. When cutting high weeds, discharge towards cut portion then recut at right angle to first direction.

Lawns should be cut in fall as long as there is growth.

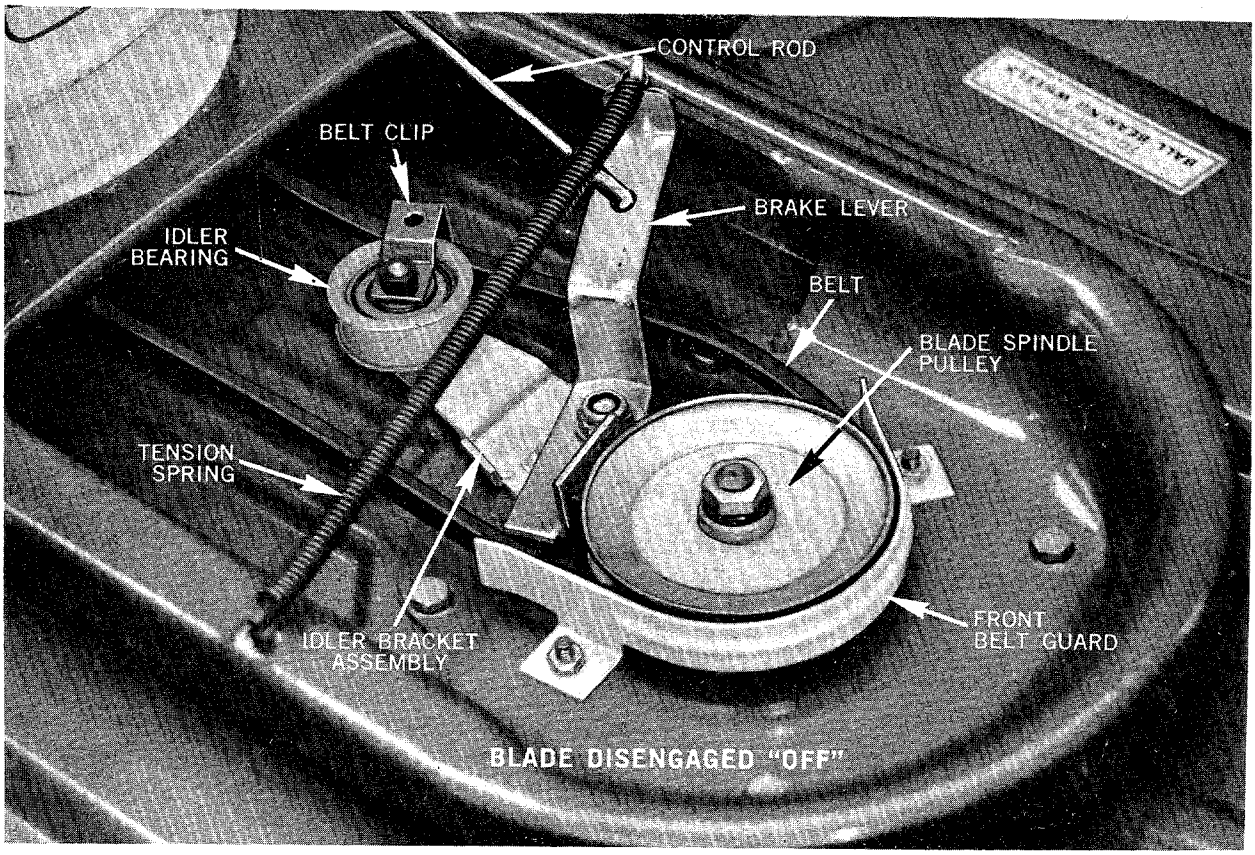


BLADE IDLER BRACKET ASSEMBLY DETAIL



BELT WEAR

Belt clips improperly positioned will cause premature belt wear. The belt clip must *completely clear the belt* when the belt is tightened. It should also assist in freeing the belt from the blade spindle pulley when the belt is loose. This may be checked by removing the blade spindle cover.


CONTROL ROD
BELT CLIP
BRAKE LEVER
IDLER BEARING
BELT
BLADE SPINDLE PULLEY
TENSION SPRING
IDLER BRACKET ASSEMBLY
FRONT BELT GUARD
BLADE DISENGAGED "OFF"

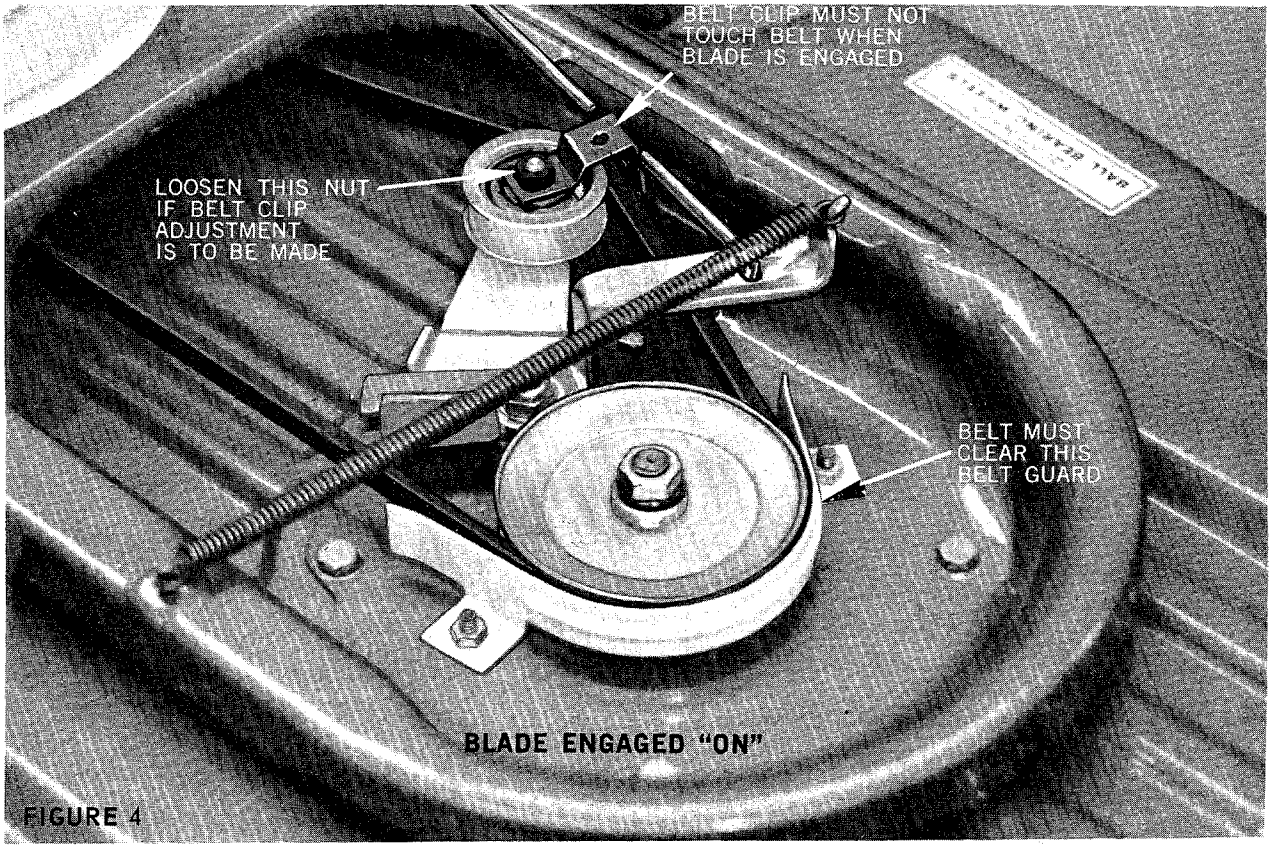

BELT CLIP MUST NOT TOUCH BELT WHEN BLADE IS ENGAGED
LOOSEN THIS NUT IF BELT CLIP ADJUSTMENT IS TO BE MADE
BELT MUST CLEAR THIS BELT GUARD
BLADE ENGAGED "ON"

FIGURE 4