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OPERATOR'S MANUAL AND PARTS LIST

JACOBSEN TEXTRON

Jacobsen Division of Textron Inc.

BLITZER® MOWERS

PRODUCT NO. 73015
SERIAL NO. T38500 AND UP

PRODUCT NO. 73105
SERIAL NO. T64800 AND UP

INCLUDES WHEEL ACCESSORIES
PRODUCT NOS. 70091, 70093, & 70097

⚠ WARNING

IF INCORRECTLY USED THIS MACHINE CAN CAUSE SEVERE INJURY. THOSE WHO USE AND MAINTAIN THE MACHINE SHOULD BE TRAINED IN ITS PROPER USE, WARNED OF ITS DANGERS, AND SHOULD READ THE ENTIRE MANUAL BEFORE ATTEMPTING TO SET UP, OPERATE, ADJUST OR SERVICE THE MACHINE.

Litho in U.S.A. 1285

Part No. 361077

HOW TO ORDER REPAIR PARTS

This manual is an operating and service guide for the owner. We recommend that you read it carefully before operating your vehicle and that you follow the simple adjustments and maintenance listed. We do not recommend that you make major repairs beyond necessary adjustments and simple parts replacements required to keep your unit in good operating condition.

For assistance in getting the most out of your unit, and for overhaul, winter or summer storage, tune-up, and repair service, we recommend your Authorized Jacobsen Turf Equipment Distributor, who is prepared to help you.

To eliminate error and speed delivery:

1. Write your NAME and ADDRESS on your order plainly.
2. Explain WHERE and HOW to make shipment.
3. Give PRODUCT NUMBER, NAME, and SERIAL NUMBER that is stamped on the NAME PLATE or SERIAL PLATE of your product.
4. Order by QUANTITY DESIRED, the PART NUMBER, and the DESCRIPTION OF PART.
5. Send your order to or visit your nearest AUTHORIZED JACOBSEN TURF EQUIPMENT DISTRIBUTOR.
6. INSPECT ALL SHIPMENTS ON RECEIPT. If any parts are damaged or missing, file a claim with the carrier before accepting.
7. Do not return material to your nearest AUTHORIZED JACOBSEN TURF EQUIPMENT DISTRIBUTOR without a letter of explanation. Make a list of all returned parts, show your name and address, and include it with the shipment. TRANSPORTATION CHARGES MUST BE PREPAID.

General Information

FOREWORD

This manual has been prepared to aid you in operating, maintaining, assembling and ordering parts for your Blitzer Mower Unit.

The Blitzer unit is furnished with a 10"(254 mm) 5-blade reel (Product No.73105) as standard equipment, but is also available with a 4-blade reel (Product No. 73015) as optional equipment.

Wheels are available in various sizes and are packaged in separate cartons to expedite handling of orders and lower shipping costs.

The recommended wheel sizes for use with the Blitzer are as follows:

Product No. 70091	4.00 x 12 pneumatic wheels
Product No. 70093	18"(457 mm) diameter steel wheels which have replaceable rims
Product No. 70097	4 x 20 semi-pneumatic wheels which have replaceable tires

Units equipped with pneumatic tires are especially recommended if units are transported for long distances over highways, or other hard surfaces, where a flotation problem discourages the use of steel wheels. However, steel wheels or semi-pneumatic will prove satisfactory for the average mowing conditions.

Frame combinations for the Blitzer Mower Units are available in various types to adapt the Blitzer mowing unit to almost any type of mobile equipment.

The Blitzer unit can be used in any 3, 5, 7, 9 or 11 combinations. These combinations should allow the operator to do any job easily and economically.

SPECIFICATIONS

CUTTING WIDTH: 30"(762 mm) (each unit).

WHEELS: Steel, semi-pneumatic, or pneumatic wheels to suit all types of turf and mowing conditions.

GEARS: Precision machine cut.

REELS: 10"(254 mm) diameter reels. The blades are supported by 5 steel discs welded to the shaft: 5 blades standard, 4 blades optional.

DRIVE: Separate train of gears for each ground wheel.

HEIGHT OF CUT:

18"(457 mm) Steel Wheels	1" to 3-1/2"(25 to 89 mm)
4 x 20 semi-pneumatic	1" to 3-1/2"(25 to 89 mm)
4.00 x 12 Pneumatic	1" to 3-1/2"(25 to 89 mm)

NOTE

Cutting height settings below 1-1/2"(38 mm) are not recommended unless the ground is exceptionally smooth.

BEARINGS: Adjustable roller bearings for ground wheel. Tapered roller intermediate gear bearings. Adjustable tapered bearings for reels.

LUBRICATION: All gears and bearings lubricated from main reservoirs.

BED-KNIFE: Heat treated steel.

CLUTCH: Separate clutch in each housing for throwing reels in and out of gear.

ADJUSTMENT: Regulation of bed-knife is done entirely by hand. No tools of any kind are required to adjust the Jacobsen cutting units. Friction lock holds adjustment in any position.

Operation

PRE-OPERATION INSTRUCTIONS

Before this unit is placed in operation these items should be checked.

1. Check all hardware for tightness.
2. Check reel and bed-knife for proper adjustment.

IMPORTANT

The bedknife has been backed off the reel to prevent damage durning shipping. It must be readjusted as described under "Adjustments" section or reel will not cut properly.

3. Check all lubrication points.

IMPORTANT

After the first eight hours of operation we suggest that the operator check the adjustment of ground wheel cylinders and reel bearings for end play. Also tighten hub caps if loose.

IMPORTANT

The first few days of operation of this mower represent the most important period in the life of the machine. During this time the bed-knife and reel blades are taking their proper seat. This seating process should not be forced by adjusting the blades too closely. A tight adjustment will cause the cutting edges to be worn away resulting in poor cutting performance. A sharp cutting edge on both reel blades and bedknife will be maintained if the adjustment is made so that the reel will spin freely without binding on the bed-knife. For best results keep the reel blades running freely at all times.

For final adjustment always spin the reel backwards by hand, with a continuous spinning motion on the reel; make a very light uniform metal to metal adjustment, if needed, between the reel and the bed knife so that they will shear paper (approx. 004"(0.1 mm) thickness) cleanly across the entire length of the bed knife on every reel blade. When spun by hand the reel should spin freely, approximately two revolutions before stopping. A perfect adjustment is zero contact and zero clearance between the bed knife and reel. It is not always possible to achieve a perfect adjustment but you should always strive for as close to a perfect adjustment as possible.

When adjusting the bed-knife to meet the reel - both adjusting handles must be drawn up simultaneously. Use fingers only - NO WRENCHES.

OPERATING SPEED

The operator should mow at slow speeds until he is familiar with the cutting area. In smooth areas that have been cleared of debris, operating speeds can be higher. In rough or uncleared areas operating speeds should be greatly reduced.

The mower will cut as well at low speeds as it will at high speeds. The most efficient operating speed for the mower is between 2 & 4 MPH (3.2 & 6.4 KPH) depending on grass and ground conditions.

TURNING

In turning, only the outside wheel, which is traveling the fastest is doing the driving of the reel. If in continued operations, all turning is in one direction, all wear of gear bearings, etc. will take place in the same gear housing.

It is recommended that the operator alternate mowing directions each time an area is cut.

TRANSPORTATION

When mowers are being transported from one cutting area to another along roadways, etc. the reel clutches (B, Fig. 2) should be disengaged. To disengage the clutches, the pointers on both clutch handles should be turned toward the front of the mower. To engage the clutches the pointers should be turned toward the rear of the mower.

IMPORTANT

Since the clutch handles only turn a slight amount between engaged and disengaged it is necessary to rock the wheels back and forth to make sure the pawls are fully engaged or disengaged.

If reels are allowed to remain engaged and revolve while being transported, excessive friction and heat will develop between the bed-knife and the reel, which will result in binding and damage the cutting edges of these two components.

IMPORTANT

Operate at reduced speeds over sparsely grassed areas, as lack of sufficient grass juice to lubricate the blades will also cause damage to reel blades and bed-knife.

Maintenance

LONG GRASS PROBLEM INSTRUCTIONS

The Blitzer mower units are designed as maintenance pieces of equipment. They are not "reapers" or agricultural pieces of equipment to be used on areas only once or twice a season.

For areas that have been permitted to reach a height in excess of approximately 10"(254 mm), better results will be obtained by raising the height of cut to the highest practical adjustment on each until the field is in proper condition for regular maintenance, then lowered to the desired height.

BLADE SHARPENING

With the edges of reel blades and bed-knife operating in a shearing action, they are self-sharpening and may never need sharpening by the grinding process unless they have been subjected to severe abuse, etc. If or when it becomes necessary to sharpen either or both of the components by the grinding process, we recommend that this work be contracted through an authorized Jacobsen Turf Equipment Distributor who has trained personnel and the proper equipment to perform this type of work.

Maintenance

IMPORTANT

Unless the cutting edges are properly ground, they can be ruined quickly and many years of usefulness of the material will be destroyed.

TIRE INFLATION

The proper tire inflation pressure for 4:00 x 12 pneumatic tires is 35 lbs. (241 kPa, 2.4 bars). This pressure should be maintained at all times for best results.

Chevron tread tires must be mounted on Blitzer pull units so the "V" tread points to the rear of the mower when viewed from the top of the mower. The "direction arrows" on the side of tires should be disregarded. Maximum traction as well as self cleaning characteristics will be assured if tires are mounted in this manner.

KEEP MOWERS CLEAN

To obtain best results and long life for your Jacobsen equipment, keep mower units clean and be sure to use only Jacobsen repair parts. Consult your nearest authorized Jacobsen Turf Equipment Distributor for prompt and efficient service.

TO STRAIGHTEN DAMAGED BLADES

When the unit encounters an obstruction that lodges between the reel blades and bed-knife, a bent reel blade may result. If it does, rotate reel so that damaged blade is in the most accessible position for straightening. Place a wooden obstruction between reel blades and main axle of cutting unit so the reel cannot revolve. Hold a "stop", such as a metal casting or sledge hammer head, firmly behind the distorted portion of the blade, and with a hammer pound blade back into its original shape, or as close as possible. Remove obstruction so the blade can be rotated. The straightening process will have undoubtedly caused a "high spot" so that this particular blade will not pass the bed-knife. A sharp "mill file" should be used to remove the "high spot".

Adjustments

BED-KNIFE ADJUSTMENT

Grass is cut by the shearing action which takes place between blades of the revolving reel coming in contact with the forward edge of the stationary bed-knife. Only the slightest possible contact is necessary for satisfactory performance. Proper adjustment will result in a self-sharpening action.

The reel shaft is mounted on two tapered roller bearings which are adjustable to compensate for normal wear and eliminate end play (See Reel Bearing Adjustment).

The bed-knife (C, Fig. 1) or stationary cutter bar is mounted on the bed-knife backing (D, Fig. 1) which is journaled or pivoted on each side of the cutting unit framework at (G, Fig. 1). The bed-knife must be adjusted evenly to the reel from both ends.

The bed-knife is adjusted by turning the handles (E, Fig. 1) on each end of the unit. Turn the handles clockwise to bring bed-knife closer to reel and counterclockwise to move it away.

The handles should be turned by hand. DO NOT USE TOOLS. A spring friction grip (F, Fig. 1) provides sufficient friction to hold any adjustment.

IMPORTANT

For continued satisfactory performance, be sure that both ends of the bed-knife are always adjusted evenly to the reel. Adjusting only one side will cause the bed-knife cutting edge and blades of the reel to wear at an angle or taper. Operators should understand that it is "human nature" for a right handed person to adjust the bed-knife more on the right hand side than on the left and vice-versa for a left handed operator. Great care should be taken to adjust both sides as evenly as possible. The R. H. end of bed-knife should have a small bevel at all times.

All Blitzer Mowers are now equipped with a new spacer (J, Fig. 1) to provide a greater spring pressure on the bed-knife shoe. The spacer is located below the compression spring (A) on both sides of the bed-knife shoe. When the spring (A) if fully compressed, remove the spacer (J); this will allow an additional 5/16"(7.93 mm) adjustment. When the spring (A) again is fully compressed, replace it with a No. 315844 spring, which will give additional 5/16"(7.93 mm) adjustment. When this replacement spring is fully compressed, it will be necessary to replace the reel and revert back to the original spring (A) and spacer (J). A No. 315844 Spring can be ordered from your Jacobsen Turf Equipment Distributor.

REEL BEARING ADJUSTMENT

The reel shaft is mounted on two tapered roller bearings that are adjustable to compensate for normal wear and eliminate end play. When bearing adjustment is necessary, proceed as follows:

1. Remove both bed-knife adjusting handles, springs and screws to allow backing assembly to swing free of reel.
2. Remove right hand wheel and gear case cover cap.
3. Hold reel from turning and tighten reel shaft nut very carefully until all end play is eliminated and reel revolves freely.

IMPORTANT

Do not tighten nut beyond this point, otherwise the gear housings will be drawn inward and cause the bed-knife backing assembly to bind. The bed-knife backing assembly must swing freely between gear housings at all times.

4. Reassemble bed-knife and adjusting handles, springs and screws and adjust backing assembly to reel.
5. Reassemble gear case cover cap and drive wheel to hub.

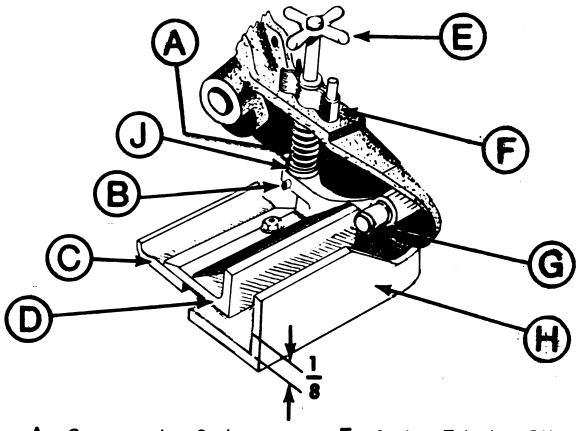
Adjustments

IMPORTANT

When lapping the reel, always attach lapping machine to left hand nut on reel shaft when standing behind mower. Do not lap reel from right hand side.

SKID ADJUSTMENT

The skids should be adjusted so that there is a 1/8'' clearance between skid (H, Fig. 1) and bed-knife backing (D, Fig. 1) at all times. This is to eliminate the transmission of shocks to the bed-knife from uneven terrain. The adjustment is made by loosening the four bolts, two in each end of the skid, and raising or lowering the skid as required.



A - Compression Spring
B - Adjusting Screw
C - Bed Knife Steel
D - Bed Knife Backing
E - Adjusting Handle
F - Spring Friction Clip
G - Stud
H - Skid
J - Spacer

Figure 1

Lubrication

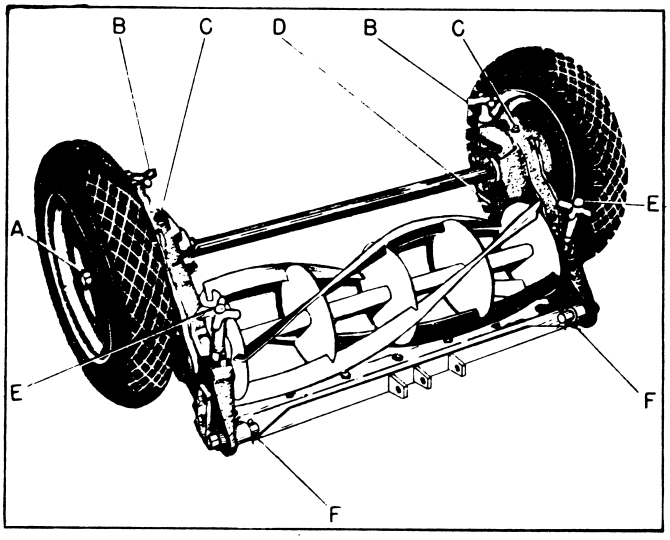


Figure 2

LUBRICATION

All new Blitzer mower units are properly lubricated at the factory; however, overhauled units must be properly lubricated before they are put back into operation. Refer to Fig. 2 for reference letters that apply to these instructions.

GREASE HOUSING

Use 1 Pint or .473 liters (1 lb. or .453 kg) in each gear housing. Insert lubricant through filler plug (C) on top of housings using a suction type grease gun. In using the recommended type of lubricant one filling will be sufficient for a full mowing season and no further checking or additions of lubricant is required except in cases of breakage or leaks that might occur due to faulty seals or gaskets. We recommend using Texaco Marfax 00.

To check oil level remove plug (D) on gear housing.

WHEELS

Wheel bearings and wheel cylinders should be repacked with a good brand of fiber base wheel bearing grease twice each season. Repacking is done by removing the lockscrews, lock tabs, hub cap, hub, seal, and bearing, repacking the bearing housing and reinstalling the parts removed. If wheel bearing needs adjustment see Item No. 3 of Reel Bearing Adjustment instructions.

IMPORTANT

Before reinstalling the hub cap apply Permatex #2 to the face of the wheel hub in contact with the hub cap.

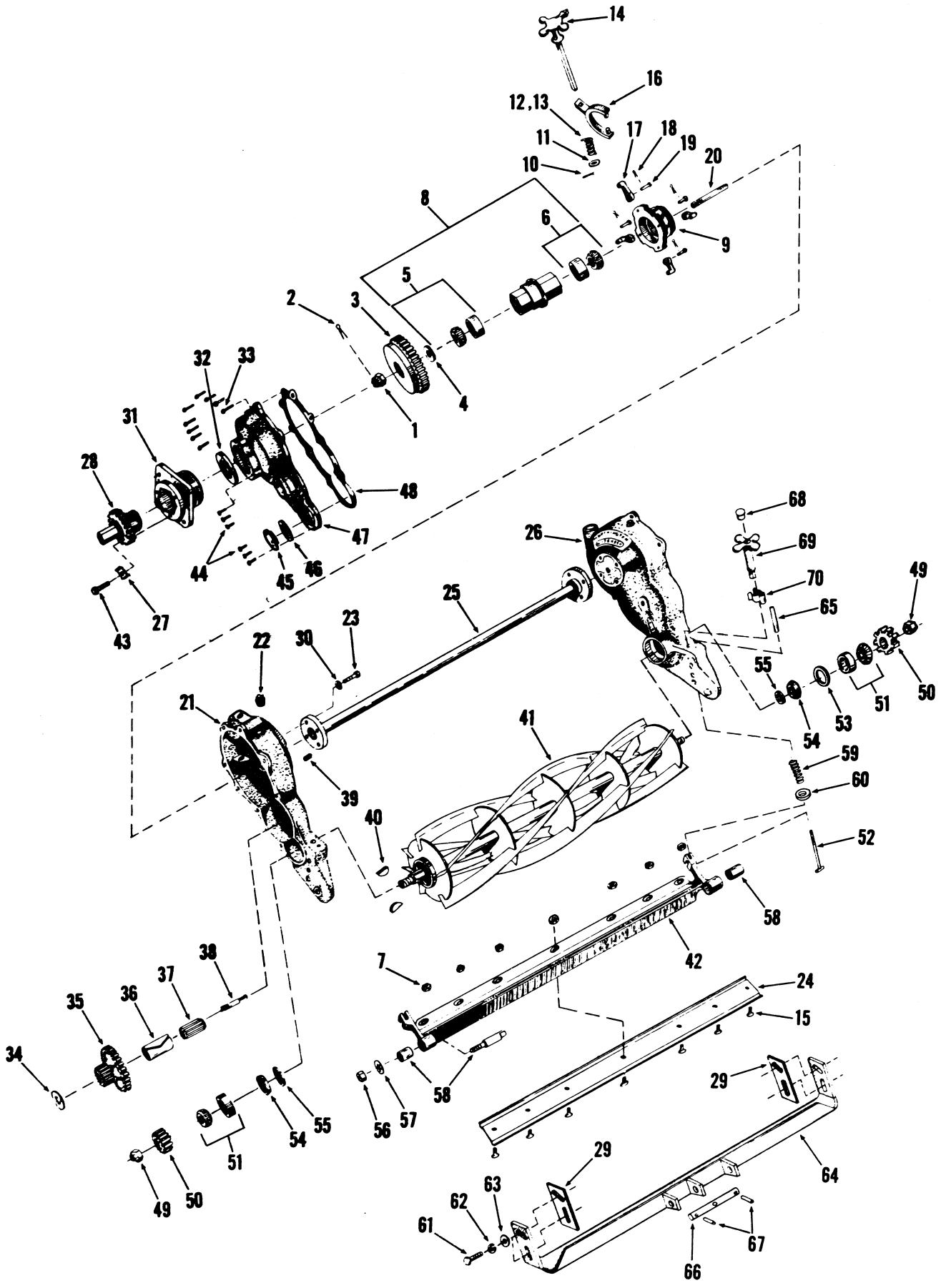
BED-KNIFE ADJUSTING HANDLE:

Remove the plugs twice each season from the top of adjusting handles (E) and place one teaspoonful of any good brand of winter grade chassis lubricant into the handles. Replace plugs. We also recommend that a few drops of light engine oil be placed on each end of the bed-knife backing journals (F, Fig. 2).

IMPORTANT

Keep base of adjusting handle free of lubricant.

Blitzer Mower



Parts List

Ref. No.	Part No.	Quan.	Description
1	445686	2	Nut, 3/4-16 Castle
2	460028	2	Pin, 1/8" x 1", Cotter
3	220275	2	Gear, Main
4	453022	2	Washer, 3/4 SAE
5	500533	2	Roller Brg Assem, Cup, Cone & Ring (Incl. Ref. 4)
6	500534	2	Roller Bearing Assem, Cup & Cone
7	445684	7	Nut, 3/8-24 Hex
8	500236	2	Cylinder, Wheel (Incl. 1 ea. Ref. 5 & 6)
9	203975	2	Wheel, Pawl
10	460026	2	Pin, 1/8 x 3/4 Cotter
11	315861	2	Washer
12	316766	1	Spring, Clutch Handle, L.H.
13	316765	1	Spring, Clutch Handle, R.H. (Not Illus)
14	153215	2	Handle, Clutch
15	402698	7	Screw, 3/8-24 x 3/4 Flat Hd Mach
16	203968	2	Fork, Clutch
17	204871	8	Pawl
18	460012	8	Pin, 3/32 x 5/8, Cotter
19	315867	8	Pin, Pawl
20	545515	2	Stud, Ground Wheel
21	109550	1	Housing, Gear, L.H.
22	472205	2	Plug, 3/8 Sq. Hd. Filler
23	400406	8	Screw, 1/2-13 x 1-1/4 Hex Hd Cap
24	325163	1	Knife, Bed
25	108126	1	Axle, Main
26	109551	1	Housing, Gear, R.H.
27	327676	2	Tab, Locking
28	204119	2	Cap, Hub
29	325402	AR	Spacer, Skid Mounting
30	446152	8	Lockwasher, 1/2 Med
31	203984	2	Hub, Ground Wheel
32	315967	2	Seal, Cover
33	407706	18	Screw, 1/4-20 x 7/8 Phillips
34	302295	2	Washer
35	331834	2	Gear, Intermediate
36	315978	2	Sleeve, Roller Bearing
37	315977	2	Bearing, Roller
38	315851	2	Stud, Intermediate Gear
39	472203	2	Plug, 1/4" Sq Hd Level
40	315877	4	Key, Pinion

Ref. No.	Part No.	Quan.	Description
41	502673	1	Reel, 5 Blade Std
	502674	AR	Reel, 4 Blade, Optional (Not Illus)
	502672	AR	Reel, 6 Blade, Optional Gov't Specs. (Not. Illus)
42	130304	1	Backing, Bed-Knife
43	400106	2	Screw, 1/4-20 x 5/8 Hex Hd Cap
44	408052	10	Screw, 12-24 x 1/2 Binding Head
45	352635	2	Cap, Cover
46	315876	2	Gasket
47	203986	2	Cover, Housing
48	315928	2	Gasket, Cover
49	444746	2	Nut, 3/4-16 Hex, Gripco C/Loc
50	315843	2	Pinion, Reel
51	500711	2	Bearing, Cup and Cone
52	316351	2	Screw, Adjusting
53	315910	1	Spacer, R. H. Side Only
54	315872	2	Seal
55	315873	2	Washer, Seal
56	443828	2	Nut, 5/8-18 Hex, Jam
57	447224	2	Washer, 5/8, Shakeproof
58	500264	2	Each, Bushing and Stud-Bed Knife Backing
59	315966	2	Spring, Compression
60	352435	2	Spacer
61	400336	4	Screw, 7/16-14 x 1-1/4 Hex Hd Cap
62	446146	4	Lockwasher, 7/16 Med.
63	453013	4	Washer, 7/16 SAE
64	501164	1	Skid
65	461406	2	Pin, 3/8 x 1-3/4 Roll
66	316478	1	Rod, Lever to Skid
67	460028	2	Pin, 1/8 x 1 Cotter
68	344708	2	Plug
69	500548	2	Handle, Adjusting (Incl. Ref. 74)
70	315964	2	Spring, Friction

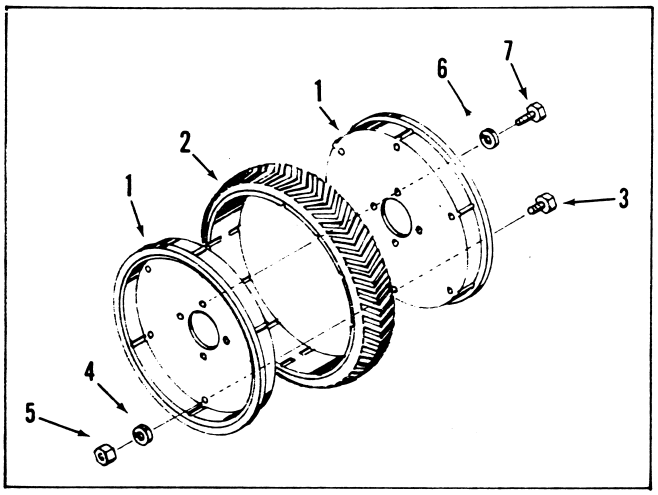
AR - As Required

Note: No Orders can be filled unless part number and serial number of equipment are given.

Wheel Accessories

4.00 x 20 Semi-Pneumatic Wheel Accessory No. 70097

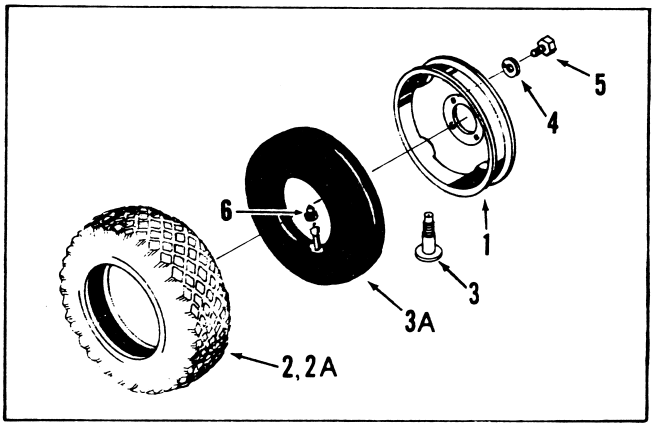
Ref. No.	Part No.	Quan.	Description
1	336054	4	Disc, Wheel
2	316482	2	Tire, 4.00 x 20, Semi-Pneumatic
3	400258	12	Screw, 3/8-16 x 3/4 Hex Hd
4	446140	12	Lockwasher, 3/8
5	443110	12	Nut, 3/8-16 Hex
6	446152	8	Lockwasher, 1/2 Med
7	400438	8	Screw, 1/2-20 x 1 Hex Hd



4.00 x 12 Pneumatic Wheel Accessory No. 70091

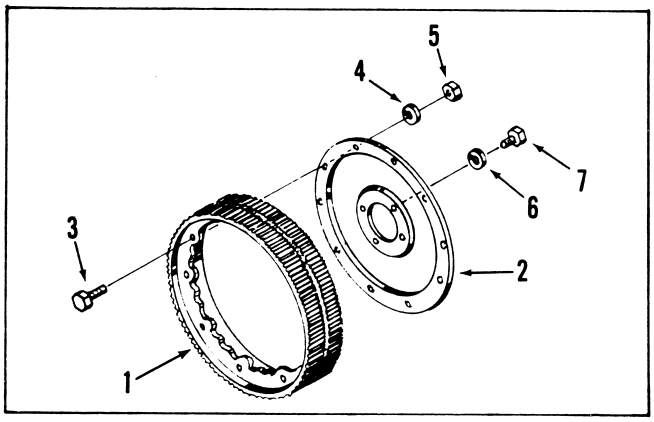
Ref. No.	Part No.	Quan.	Description
1	108093	2	Disc & Rim Assembly
*2	358489	2	Tire, 4.00 x 12 Pneumatic Tubeless
**2A	318139	2	Tire, 4.00 x 12 Pneumatic
*3	341679	2	Valve
**3A	318140	2	Tube, Inner 4.00 x 12
4	400436	8	Screw, 1/2-20 x 7/8 Hex Hd Cap
5	446152	8	Lockwasher, 1/2 Med
6	360112	2	Cap, Nylon Valve

* For Tubeless Tires Order Ref. Nos. 2 & 3.
** For Tires with Inner Tubes Order Ref. Nos. 2A & 3A.



18" Steel Wheel Accessory No. 70093

Ref. No.	Part No.	Quan.	Description
1	203987	2	Rim, Wheel
2	315938	2	Disc, Wheel
3	400226	20	Screw, 5/16-24 x 1 Hex Hd
4	310266	20	Washer
5	444754	20	Nut, 5/16-24 Hex C/Lock
6	400436	8	Screw, 1/2-20 x 7/8 Hex Hd
7	446152	8	Lockwasher, 1/2 Med



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