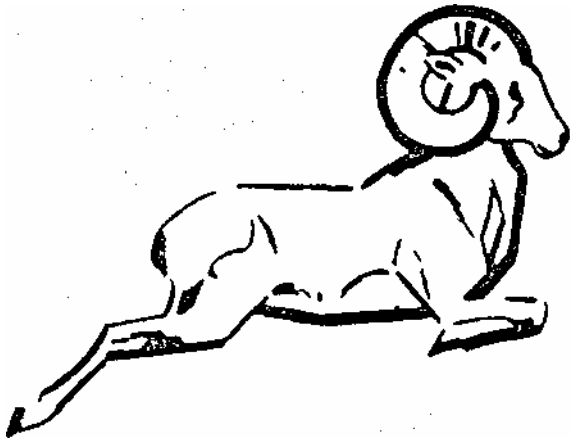


OWNER'S OPERATING MANUAL



RAM industries, Inc.

401 South Second St.

Leavenworth, Kansas 66048

IMPORTANT! READ CAREFULLY

You have purchased a top quality lawn mower that has been inspected at the factory and found to be in perfect mechanical condition. This lawn mower is warranted for 1 year from date of delivery against all defects in materials and workmanship. Lawn mowers used for commercial service are warranted for 30 days from date of delivery.

WARRANTY

Each new mower is warranted against manufacturing defects in material and workmanship under normal use and service. Our obligation, under this warranty, shall be limited to the replacement to the original retail purchaser of any part or parts which, within the warranty period, shall be shown to be defective due to faulty workmanship or materials at the factory. All parts claimed defective must be returned to the factory for inspection, repair or replacement with transportation charges prepaid.

This warranty does not apply to damage in transit or damage caused by misuse, negligence or accident, to alterations or repairs done outside the factory or authorized service stations, nor does it obligate us to assume any labor or transportation charges in connection with the replacement of parts claimed to be defective.

Our warranty does not apply to the blades, adapters, chains and belts on our mowers due to the very nature of the function they perform and to the elements they are exposed to.

The warranty specifically excludes engines, tires and batteries which are warranted separately by their respective manufacturers. All claims for defective engines or engine parts must be made in accordance with the engine manufacturer's warranty.

We reserve the right to make changes in design and changes or improvements on our product without imposing any obligation upon ourselves to install the same on products here-to-fore manufactured.

This warranty is null and void if any parts other than original manufacturer's parts are used,

SERIAL NUMBERS

The lawn mower has two serial numbers:

Chassis Number — Located at right rear trans axle mount.

Trans Axle Number — Located at right rear of trans axle.

SAFETY INSTRUCTIONS

BEFORE MOWING:

1. Before starting operation thoroughly inspect area where mower is to be used, and remove all debris that could be caught on or thrown by the blades.
2. Before mowing on rough terrain or in high grass or weeds, the height adjustment should be set at the highest cutting point to minimize debris being ejected from the mower.
3. Know how to stop the mower and engine quickly.
4. Do not operate -mower in wet grass or darkness.
5. Clear the area of children and pets.

DURING MOWER OPERATION:

1. Never leave engine running when mower is unattended.
2. Never start the engine or blades until you are ready to start mowing.
3. Never stand on grass discharge side of mower when blades are turning. Stop the mowing operation when another person approaches.
4. Never put hands or feet under or in rotating parts or hidden areas, using special caution to keep hands and feet out of and away from the cutter blades, belts, pulleys, gears, etc. while engine is running or immediately after the engine is stopped.
5. Never work on mower while engine is running. Disconnect spark plug wire before doing any work on mower. Never tamper with engine governor.
6. Exercise extreme caution" when using mower on slopes or incline.
7. Never fill gasoline tank while engine is running or while engine is hot. Wipe off any spilled gasoline before starting.
8. Never operate mower bare footed or wearing sandals.
9. Check all screws, nuts and bolts at frequent intervals to be sure that the mow'er is in safe operating condition.
10. Never run engine indoors.
11. If the mower should start vibrating, stop the engine immediately and check for damage or loose parts. Vibration is usually the warning of trouble.
12. Never lift lawn mower by the body, lift only by the frame.

RAM 80E SPECIFICATIONS

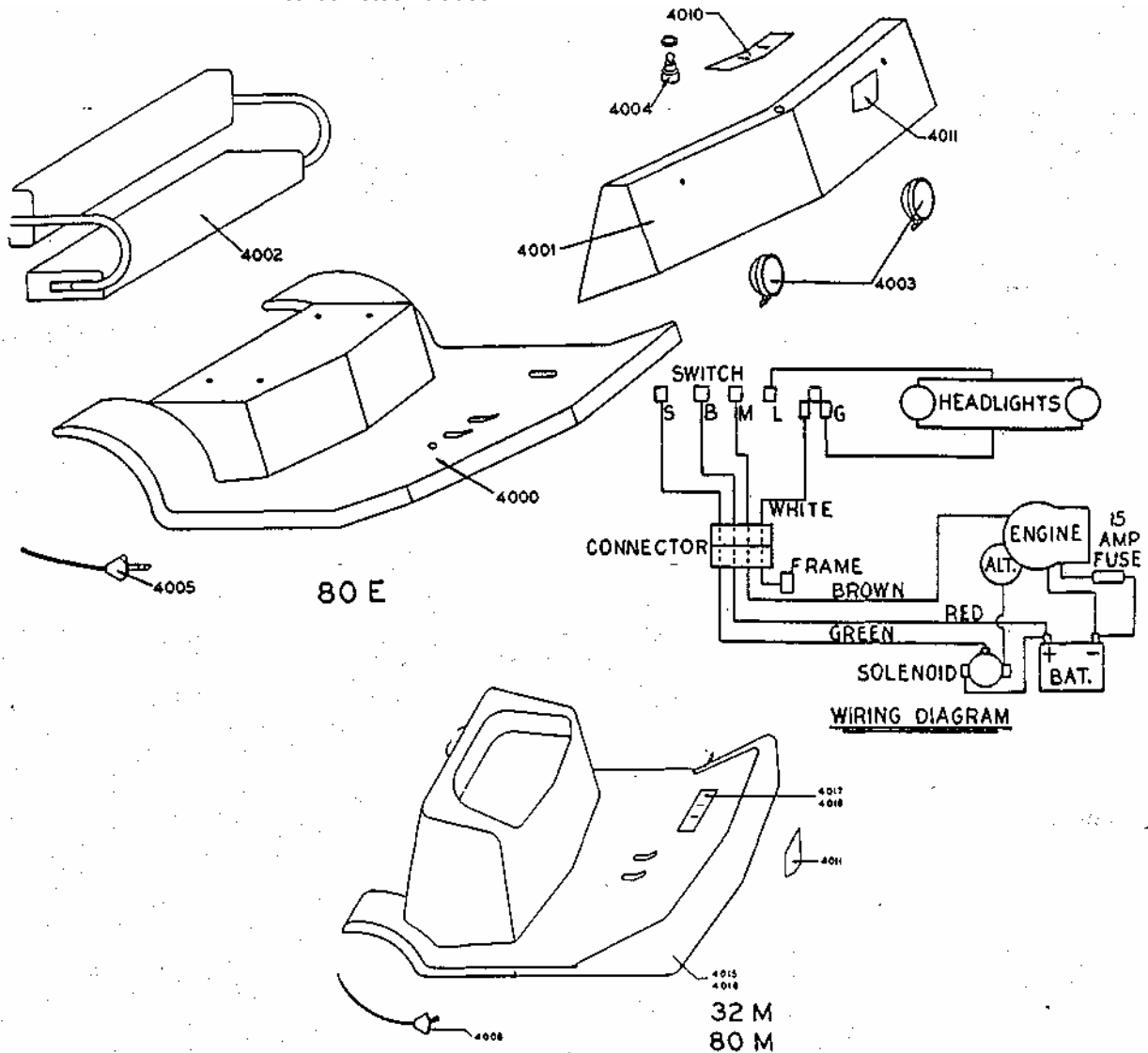
Length	65 inches -
Width	44 inches (less mower deck) 51 inches (with mower deck)
Height	36 inches
Wheel Base	28 inches
Track Rear	34 ½ inches
Track Front	34 inches
Weight	325 lbs. (less mower deck) 375 lbs. (with mower deck)
Turning Radius	---0---
Frame	Heavy gauge welded 1"x2" rectangular tubing
Body	Two piece molded fiberglass
Seat	Extra wide double seat of polyurethane foam covered with naughahyde Heavy gauge stamped steel pneumatic turf tires
Wheels	Rear 18x 9.50 —8 Front 4.10 x 3.50 —4
Electrical	12 volt heavy duty battery — key start with automotive type solenoid, alternator and starter, sealed beam headlights.
Engine	Briggs & Stratton synchro balanced 8 H.P. with solid state ignition. Electric start with manual starter.
Trans Axle	Unique trans axle with only two levers control braking, acceleration, clutching, turning and direction. Fewer moving parts than conventional transmission and differential. Sealed bearings used throughout.
Mower Deck	Heavy gauge construction with full floating 42 inch width of cut with wind channel design that eliminates bunching and wind rowing. Sealed bearings used throughout. Hardened high carbon steel blades.

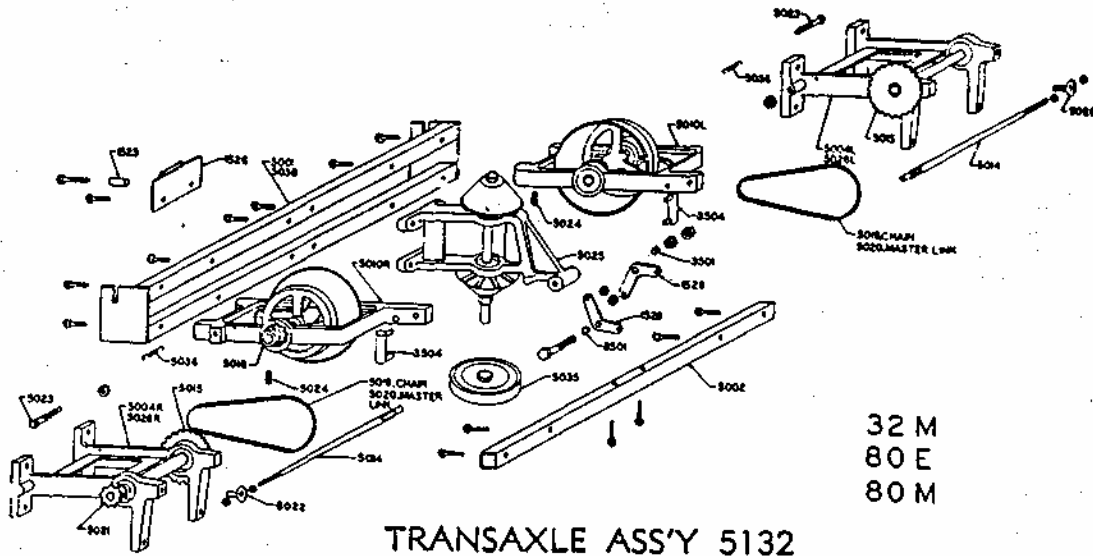
RAM 80M SPECIFICATIONS

Length	65 inches
Width	44 inches (less mower deck) 51 inches (with mower deck) 28
Height Wheel	inches 38 inches
Base Track Rear	34 Yi inches
Track Front	34 inches
Weight	250 lbs. (less mower deck) 300 lbs. (with mower deck)
Turning Radius	— 0 —
Frame	Heavy gauge welded 1" x 2" rectangular tubing
Body	One piece molded fiberglass
Seat	Molded into body
Wheels	Heavy gauge stamped steel
Tires	Pneumatic Turf Tires Rear 18x9.50 —8 Front 4.10 x 3.50 —4
Engine	Briggs & Stratton 8 H.P. with solid state ignition and manual starter Unique transaxle with only two levers control braking, acceleration, clutching, turning and direction. Fewer moving parts than conventional transmission and differential. Sealed bearings used throughout.
Transaxle	
Mower Deck	Heavy gauge construction with full floating mounts. 42 inch width of cut with wind channel design that eliminates bunching and wind rowing. Sealed bearings used throughout. Hardened high" carbon steel blades.

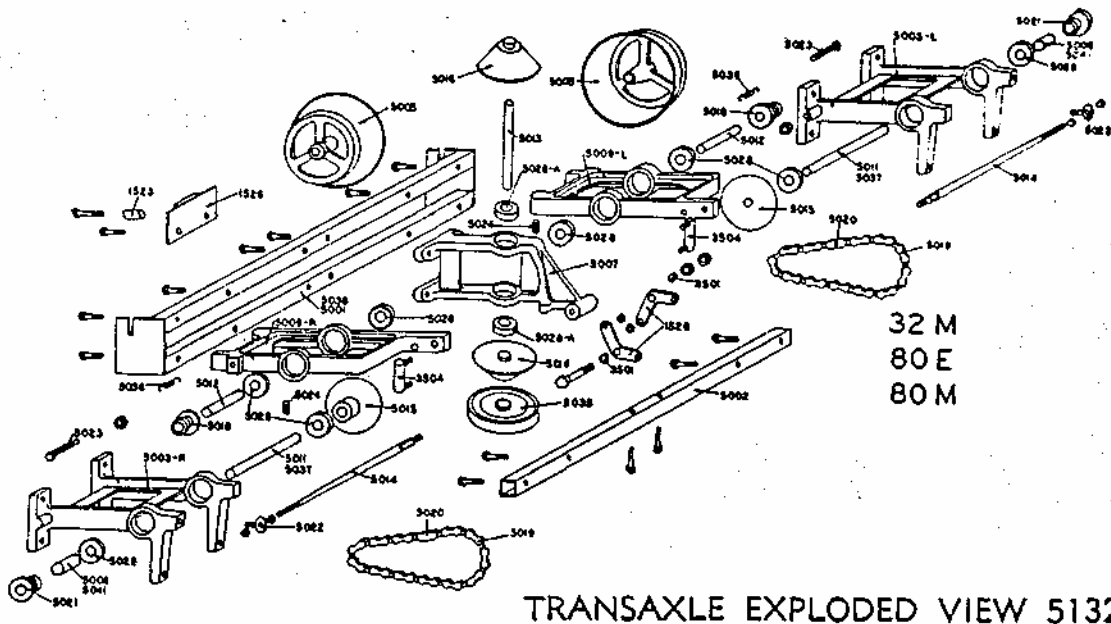
RAM 32M SPECIFICATIONS

Length	64 ½ inches
Width	34 ½ inches (with mower deck)
Height	28 ½ inches
Wheel Base	38 ½ inches
Track Rear	28 inches
Track Front	27 ¼ inches
Weight	220 lbs. (with mower deck)
Frame	Heavy gauge welded 1" x 2" rectangular tubing
Body	One piece molded fiberglass
Seat	Molded into body
Wheels	Heavy gauge stamped steel
Tires	Pneumatic tires rear 2.80/4.00 —8 Front 4.10x3.50 —4
Engine	Briggs & Stratton 8 H.P. with solid state ignition and manual starter
Transaxle	Unique transaxle with two levers control braking, acceleration, clutching, turning and direction. Fewer moving parts than conventional transmission and differential. Sealed bearings used throughout.
Mower Deck	Heavy gauge construction with full floating mounts 32 inches width of cut with wind channel that eliminates bunching and wind rowing. Sealed bearings used throughout. Hardened high carbon steel blades.





TRANSAXLE ASS'Y 5132



TRANSAXLE EXPLODED VIEW 5132

RAM industries, inc.

401 South Second St.

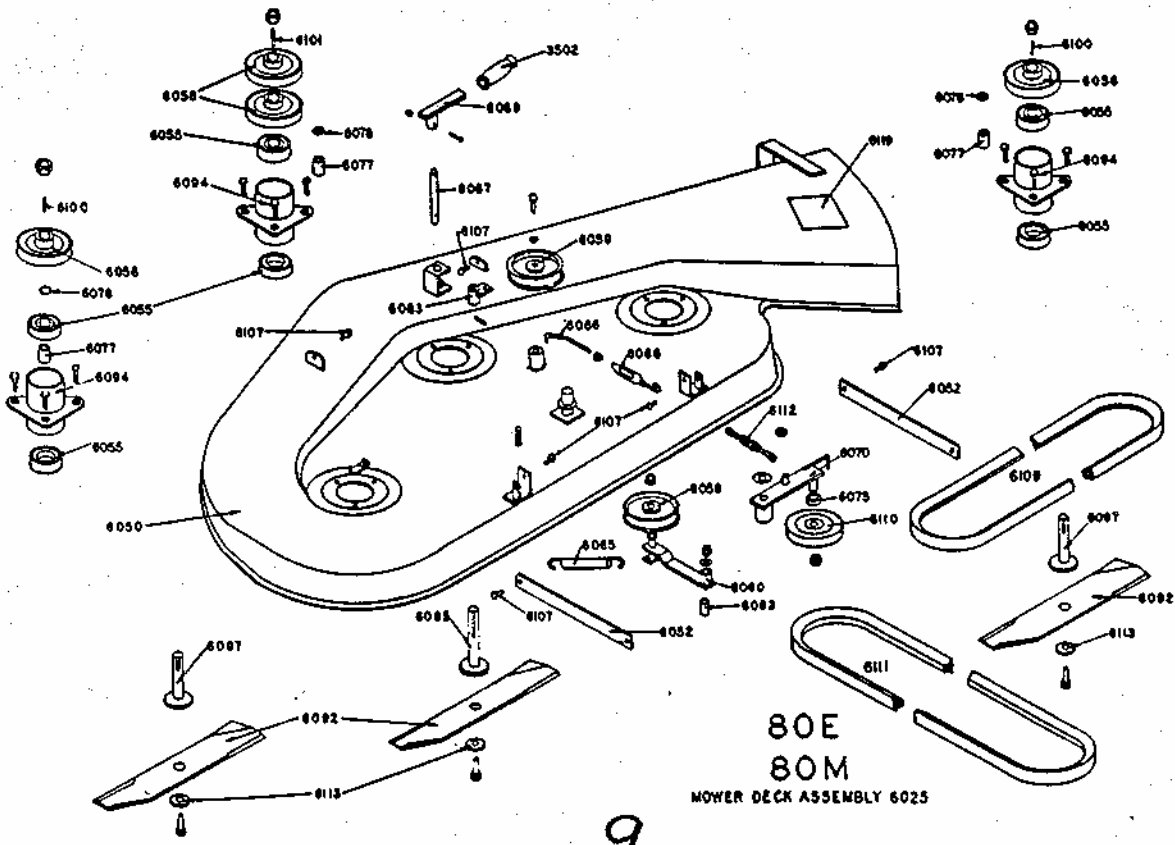
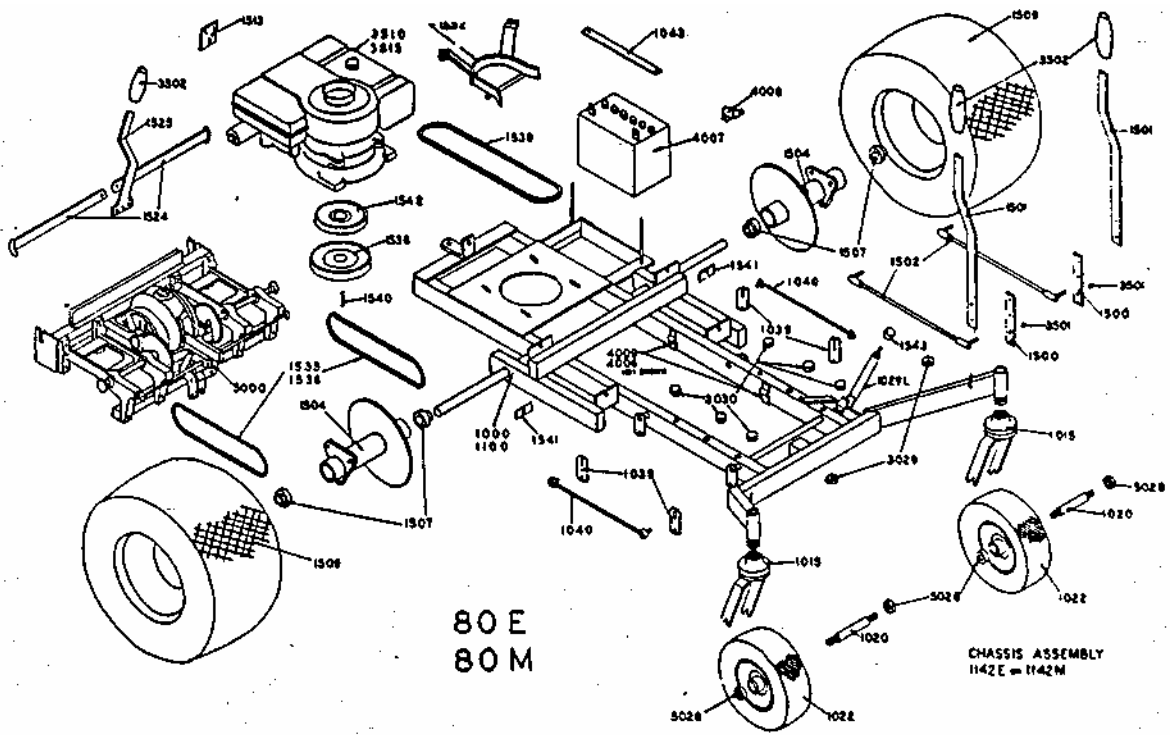
Leavenworth, Kansas 66048

COMPLETE PARTS LIST

Part No.	Name	80	80	32
		E	M	M
1000	Frame Weldment	1		
1015	Caster Assemble	2	2	2
1020	Caster Axle	2	2	2
1022	Caster Wheel and Tire	2	2	2
1029R	Lift Lever & Quadrant Right			1
1029L	Lift Lever & Quadrant Left	1	1	
1039	Lower Lift Link	4	4	4
1040	Lift Tie Rod	2	2	2
1043	Battery Strap	1		
1050	Frame Weldment			1
1072	Wheel Hub & Sprocket			2
1075	Pivot Arm			1
1031	Spacer			2
1090	Pivot Pin			1
1100	Frame Weldment		1	
1500	Lower Control Lever	2	2	2
1501	Upper Control Lever	2	2	2
1502	Control Rod Assembly	2	2	2
1504	Wheel Hub & Sprocket	2	2	
1507	Wheel Bearings	4	4	4
1509	Wheel and Tire	2	2	
1513	Tension Plate	1	1	1
1522	Brake Arm			2
1523	Brake Stop Spacer	1	1	1
1524	Brake Arm.	2	2	
1525	Brake Handle	1	1	1
1526	Brake Mount	1	1	1
1528	Bellcrank	2	2	2
1529	Wheel and Tire			2
1532	Chain			2
1535	Chain	2	2	
1536	Connecting Link	2	2	2
1538	V-Pulley	1	1	1
1539	Drive V-Belt	1	1	1
1540	Key	1	1	1
1541	Shim	*	*	*
1542	V-Pulley	1	1	1
1543	Lift Knob	1	1	1
1549	Engaging Handle			1
1552	Belt Keeper	1	1	1
3029	Front Grommet	2	2	2
3030	Rear Grommet	3	3	2
3501	Nylon Bushing	4	4	5
3502	Hand Grip	4	4	4
3504	Double Ball Joint	2	2	2
3510	8 H.P Engine Electric Start	1		
3515	8 H.P. Engine Manual Start		1	1
4000	Deluxe Body	1		
4001	Deluxe Shield	1		
4002	Seat Assembly	1		
4003	Headlight	2		
4004	Switch	1		
4005	Throttle Cable	1	1	1

Part No.	Name	80 E	80 M	32 M
4006	Wire Harness	1		
4007	Battery	1		
4008	Solenoid	1		
4009	Wire Clip	8		
4010	Control Decal	1		
4011	RAM Decal	1	1	1
4015	Standard Body		1	
4017	Control Decal			1
4018	Control Decal		1	
4019	Body			1
5000N	Transaxle	1	1	
5000B	Transaxle	1	1	
5001	Rear Tube Weldment	1	1	
5002	Front Tube	1	1	1
5003L	Support — Left	1	1	1
5003R	Support—Right	1	1	1
5004R	Support Assembly Right	1	1	
5004L	Support Assembly Left	1	1	
5005	Discup	1	1	1
5006	Spacer	2	2	
5007	Frame	1	1	1
5009L	Cradle — Left	1	1	1
5009R	Cradle — Right	1	1	1
501 OR	Cradle Assembly Right	1	1	1
5010L	Cradle Assembly Left	1	1	1
501 1	Support Shaft	2	2	
5012	Cradle Shaft	2	2	2
5013	Frame Shaft	1	1	1
5014	Torque Rod	2	2	2
5015	24 T Sprocket	2	2	2
5016	Cone	2	2	2
5018	9 T Sprocket—Narrow			
5019	Chain	2	2	2
5020	Connecting Link	2	2	2
5021	9 T Sprocket — Wide	2	2	2
5022	Thumb Screw	2	2	2
5023	Pivot Bolt	2	2	2
5024	Cradle Spring	2	2	2
5025	Frame Assembly	2	2	2
5026R	Support Assembly Right	2	2	2
5026L	Support Assembly Left	1	1	1
5028	Bearing			1
5028-A	Bearing — Notched			1
5132N	Transaxle	12	12	12
5132B	Transaxle	2	2	2
5035	Trans Axle Pulley			2
5036	Pivot Spring			1
5037	Support Shaft			1
5038U	Rear Tube Upper			2
5038L	Rear Tube Lower	1	1	
5041	Spacer	1	1	
6025	Mower Deck Assembly	2	2	2
6050	Mower Deck Weldment	6	6	4
6052	Stabilizer Arm	4	4	2
6055	Mower Bearing			
6058	V-Pulley			

Part No.	Name	E	M	M
		2	2	2
6059	Flat Idler Pulley	1	1	
6060	Serpentine Idler Bracket	1	1	
6063	Bronze Bushing	1	1	
6065	Tension Spring	1	1	
6070	Engaging Edler Bracket	1	1	1
6075	Spacer	3	3	2
6077	Bearing Spacer	3	3	4
6078	Pulley Spacer	1	1	
6083	Engaging Cam	1	1	
6086	Connecting Link	1	1	
6087	Engaging Rod	1	1	1
6088	Turnbuckle	1	1	
6089	Engaging Handle	3	3	
6092	Blade	3	3	2
6094	Hub	1	1	
6095	Center Shaft Assembly	2	2	
6097	Outer Shaft Assembly	2	2	2
6100	Key	1	1	
6101	Key	8	8	8
6107	Pin	1	1	
6109	V-Belt	1	1	
6110	V-Idler Pulley	1	1	
6111	V-Belt	1	1	1
6112	Engaging Spring	3	3	2
6113	Blade Washer	1	1	1
6119	Decal			1
6500	Mower Deck Assembly			1
6501	Mower Deck Weldment			1
6503	Engaging Link			1
6505	Engaging Idler Assembly			1
6515	V-Belt			2
6523	Blade			2
6525	Shaft Assembly			



MAXIMUM MOWING RESULTS AND SAFETY CAN ONLY BE EXPECTED IF THE MOWER IS MAINTAINED AND OPERATED CORRECTLY. THIS MOWER WAS DESIGNED FOR EFFICIENCY AND DURABILITY AND WITH NORMAL CARE SHOULD GIVE MANY YEARS OF SATISFACTORY SERVICE. PRE-STARTING INSTRUCTIONS —

1. Fill fuel tank with a good grade of Regular gasoline. Do not mix oil with gasoline.
2. Attach the spark plug wire to the spark plug.
3. With mower on a level surface fill the crankcase with a good grade of multipurpose 10-30 oil as outlined in the engine instruction manual.
4. On model equipped with a battery be sure battery has proper fluid level. Follow instructions for activating dry charge batteries.

CAUTION:

5. During initial "Break In" period, the oil level should be checked often.
6. Check oil level every five operating hours or each time mower is used.
7. Change oil every 25 operating hours or sooner if equipment is operated in extremely dusty or dirty conditions.

OPERATING INSTRUCTIONS

1. Position the trans axle to "neutral" position and set parking brake.
2. Move the mower lever to "Disengage" position.
3. Move the throttle control to "Choke" position.
4. To start models with electric starting, simply insert ignition key and turn to the far right position. When the engine starts, release the ignition key and it will remain in the "ON" position. To stop the engine simply turn the key to the "OFF" position.

Note: Electric start models are also equipped with manual start provision.
To start engine manually turn switch to "ON" and pull the starter rope.

To start manual start models, a sharp pull will start the engine. Release the starting rope as soon as engine starts.

5. Move the throttle control lever to adjust engine speed to desired setting.
6. This unit is equipped with a unique trans axle that has only two levers to control braking, turning, direction and acceleration. Starting in the neutral position, to go forward slowly, push both levers forward slightly. To increase speed push levers further forward. Speed is controlled by the position of the levers. Direction is controlled by the levers forward to go forward rearward for a reverse direction. To brake the mower just move the levers in the direction opposite of travel. To turn the mower slightly, push one lever forward of the other. To turn as sharp as possible push one lever forward and one lever rearward.

NOTE: When first operating the mower we recommend a low or medium throttle setting and disengagement of the mower blades until the operator is thoroughly familiar with the unit.

TO START MOWER BLADES

Move the lever on the floor to the engage position.

TO STOP MOWER BLADES

Move lever on the floor to the disengage position.

PARKING BRAKE

The lever behind the seat is the parking brake. To set brake, move lever until brake arms are in contact with tires to set brake.

CUTTING HEIGHT ADJUSTMENT

The cutting height is adjusted by means of positioning the adjustment lever. Push on the button knob and set cutting height, to lock position of adjustment release button knob.

NOTE! Always disengage the blades when cutting has been completed, also when parking always set the parking brake.

MAINTENANCE

BELT ADJUSTMENT

Main Drive Belt —This belt should be kept taut to lengthen belt life and prevent loss of power. To tension belt, loosen 4 bolts which hold the engine to the mount and the lock nut on the tension bolt at the rear of the machine. Tighten tensioning bolt until belt is taut and retighten the 4 bolts holding engine and tighten tension bolt lock nut.

MOWER DRIVE BELT

Belt tension for the mower drive belt is adjusted by turning the turn buckle to provide more forward movement of the engaging idler.

REPLACE BELTS WHEN/ADJUSTMENT CAN NO LONGER BE MADE SATISFACTORILY OR IF BELTS BECOME WORN.

CHAIN ADJUSTMENT

To adjust the drive chains the body must be removed and shims added behind the trans axle. To remove the body disconnect the throttle cable and electrical plug on electric start models. Remove the 4 bolts in the control levers and remove the upper levers. Remove the 2 acorn nuts on the front floor and the 3 screws at the rear of the body. Body will lift clear. Loosen 4 bolts which hold the trans axle to the frame. Insert shims (Pt. No. 1541), as needed for adjustment between trans axle and mount plates. Tighten the 4 bolts which hold the trans axle to the frame. To replace the body reverse the above procedure. A few drops of oil periodically will lengthen chain life. Replace chain when rollers become loose, chain breaks, or chain fails to operate properly.

WHEELS AND TIRES

Correct tire pressure is essential to the correct operation of the machine. The correct pressure for the drive tires is imprinted on the side walls of the tire. The front tires should be inflated to 30-35 lbs. Lug nuts should be checked periodically.

ELECTRICAL SYSTEMS

Keep all connections clean and tight. Maintain the fluid in the battery at correct level.

BODY

The body may be washed with a mild detergent and waxed with any automotive type wax.

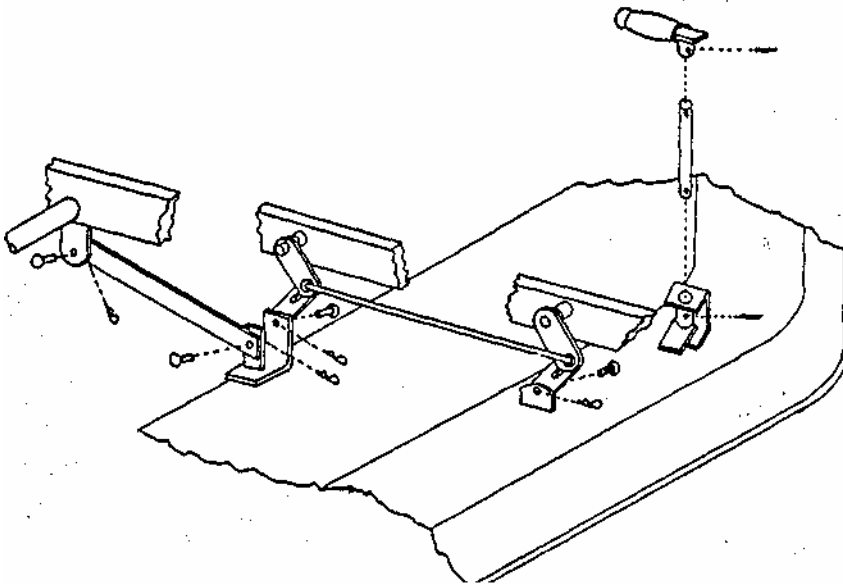
ENGINE

Follow the manufacturers instructions as to maintenance and repair.

TRANS AXLE

For adjustment or repair confer with dealer service department. Adjustment or repair by other than authorized dealer voids warranty.

1. Attach stabilizer arms to mower deck with pins and clips as shown on drawing. Attach the $\frac{1}{2}$ " DIA engaging rod with a rollpin through the engaging cam. Position the drive belt on pulleys.
2. Place mower deck under unit in approximate operating position with engaging rod through hole in the floor.
3. Connect drive belt to motor pulley, being certain that belt is inside of belt guides.



4. Attach stabilizer arms to pivot point on the inside attaching plates with pins and clips.
5. Attach lift linkage to mower deck on the inside of the attaching lugs as shown on drawing with pins and clips.
6. Place engaging handle on engaging rod and fasten with rollpin.