

# Operator's Manual · M624BITSPS



**⚠ WARNING: READ ENTIRE MANUAL BEFORE ATTEMPTING TO OPERATE MACHINE!**  
If incorrectly used this machine can cause severe injury. Those who use and maintain this 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 this machine.



The Engine Exhaust from this product contains chemicals known to the State of California to cause cancer, birth defects or other reproductive harm.

IMPORTANT: THIS UNIT IS EQUIPPED WITH AN INTERNAL COMBUSTION ENGINE AND SHOULD NOT BE USED ON OR NEAR ANY UNIMPROVED FOREST-COVERED, BRUSH-COVERED, OR GRASS-COVERED LAND UNLESS THE ENGINE'S EXHAUST SYSTEM IS EQUIPPED WITH A SPARK ARRESTER MEETING APPLICABLE LOCAL LAWS (IF ANY). IF A SPARK ARRESTER IS USED, IT SHOULD BE MAINTAINED IN EFFECTIVE WORKING ORDER BY THE OPERATOR.

IN THE STATE OF CALIFORNIA, A SPARK ARRESTER IS REQUIRED BY LAW (SECTION 4442 OF THE CALIFORNIA PUBLIC RESOURCES CODE). OTHER STATES MAY HAVE SIMILAR LAWS. FEDERAL LAWS APPLY ON FEDERAL LANDS. SEE YOUR AUTHORIZED SERVICE CENTER FOR A SPARK ARRESTER.

# Important Rules for Your Safety



Before operating this machine read all the instructions for safe operation, as well as, the instructions governing the engine and other components of this machine.

## TRAINING

- Read the Owner's Manual carefully. Be thoroughly familiar with the controls and the proper use of the equipment. Know how to stop the unit and disengage the controls quickly.
- Never allow children to operate the equipment. Never allow adults to operate the equipment without proper instruction.
- Operators should be mature enough to understand the dangers of the equipment.

## PREPARATION

- Thoroughly inspect the area where the mower is to be used and remove all foreign objects.
- Keep the area of operation clear of all persons, particularly small children and pets.
- Do not operate the equipment without wearing adequate outer garments.
- Wear footwear that will improve footing and provide adequate protection.
- Loose clothing may be caught by moving parts on the machine or by the surrounding environment and cause serious injury.
- Wear safety goggles to protect eyes from any debris or objects that may be thrown from the mower.
- Wear long pants, sturdy shoes and gloves to protect yourself from debris, sticks, rocks or other objects which could be thrown from mower.
- Handle fuel with care. It is highly flammable.
- Use only an approved fuel container.
- Never add fuel to a running engine or a hot engine.
- Fill fuel tank outdoors with extreme care. Never fill fuel tank indoors.
- Replace gasoline cap securely and clean up spilled fuel before starting.
- Never attempt to make any adjustments while the engine is running ( except where specifically recommended by manufacturer).
- Do not operate mower until you are familiar with all controls and safety symbols.

## OPERATION

- Do not attempt to trim high slope areas. Move across the slope, not up and down.
- Avoid areas with heavy debris and rocks, since the objects could be thrown from the mower and cause serious injury.
- Trim only when the grass is dry. Wet grass can cause slipping.
- Exercise extreme caution when operating near or crossing gravel drives, walks or roads. Gravel can be thrown from the mower and cause injury.

- Stay alert for hidden hazards or traffic.
- Disengage mower blade when crossing driveways or other rocky areas.
- Keep mowing area free of children and pets.
- Never operate the mower indoors where exhaust from engine can collect. It contains carbon monoxide which is a tasteless, odorless, poisonous gas.
- Operator should never place hands, feet, or any part of his body or clothing near any moving part of this mower.
- Never operate the mower without proper guards, plates, or other safety protective devices in place.
- Take all possible precautions when leaving the machine unattended. Stop the engine.
- Never direct discharge of material towards bystanders.
- If the mower should start to vibrate abnormally, stop the engine and check immediately for the cause. Vibration is generally a warning of trouble.
- After striking a foreign object, stop the engine, remove the spark plug wire, and thoroughly inspect the mower for any damage. If damage has occurred repair the damage before restarting and operating the mower.
- Do not put hands or feet near or under rotating parts.
- Never operate the machine at high speeds on slippery surfaces. Look behind and use care when backing up.
- Do not run while using equipment.
- Equipment should only be used as it was intended. Misuse can cause serious injury.
- Operate equipment only in a well lit area. Do not use mower after dark without artificial light.
- Never operate equipment when under the influence of drugs, alcohol, or prescription drugs which could cause drowsiness or poor judgement.

## MAINTENANCE

- Keep machine in good working condition.
- Wear gloves for cleaning or any maintenance of blades.
- Before cleaning, repairing, or inspecting the machine, shut off the engine and make certain all moving parts have stopped. Disconnect spark plug.
- Follow the recommendations for maintenance described in this manual and the engine literature.
- Keep engine and mower free from accumulations of grass, leaves, or excessive grease. An accumulation of these combustible materials may result in fire.
- Store gasoline only in an approved container.
- Never store machine with fuel in the fuel tank inside a building where open flame or spark are present. Allow engine to cool before storing in any enclosure.
- Frequently check all bolts and other connectors for proper tightness before operating the equipment.
- Replace safety decals as needed.
- Shut off mower when unclogging grass chute.

**ASSUMPTION OF RISK: THE OWNER AND/OR OPERATOR OF THIS MOWER ASSUMES ALL THE RISKS INCIDENT TO AND ARISING OUT OF THE OPERATION OF THIS MACHINE. BEFORE OPERATING THE MOWER, READ ALL THE INSTRUCTIONS GOVERNING THE ENGINE AND THE MOWER.**

# Assembly

1. Remove the Mower from the carton by cutting the box on all four corners and rolling it off the box base.
2. Remove owner's manuals and warranty papers.
3. Install upper handles.
  - Remove 5/16" nut and bolt on lower handle.
  - Attach upper handle to the lower handle with bolt.
  - Replace the 5/16" nuts.
  - Tighten bolts and insure handle is secure.
4. Attach the recoil start rope handle to the rope guide.
5. Check wheel driver adjustment rods to insure proper adjustment.
  - Measure distance between wheel driver and wheel. There should be a 1/4" space.
  - If adjustment is required loosen or tighten the turn buckle on the wheel driver adjustment rod.
5. Make sure all bolts are tight.

# Operation

## Before Starting Your Mower . . .

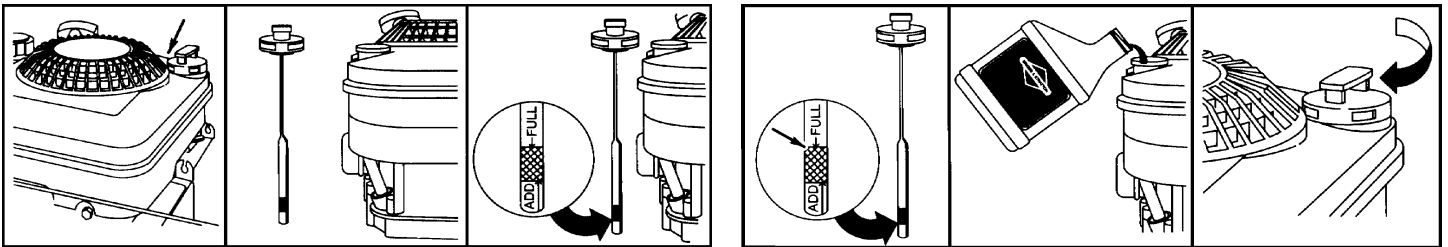
1. Check your Mower. Be sure all bolts are tight. After several hours of operating and at periodic maintenance intervals, check all fasteners and tighten securely as required.
2. Check oil and fill according to the engine owner's manual (See Figure 1).



**WARNING : YOUR ENGINE IS SHIPPED WITHOUT OIL. YOU MUST FILL THE ENGINE WITH OIL BEFORE ATTEMPTING TO CRANK YOUR ENGINE.**

- Read Engine manual for full instructions and safety warnings.
- Place mower on level ground.
- Clean around oil fill area.
- Remove dipstick. Wipe with clean cloth.
- Reinsert dipstick and tighten. Remove dipstick and check.
- Oil should be at FULL level.
- If oil is required, add slowly. Recheck level.
- Tighten dipstick and clean around oil fill area before starting.

Figure 1



3. Fill engine with clean unleaded gasoline according to the engine owner's manual.



**WARNING: GASOLINE IS FLAMMABLE. USE CAUTION WHEN HANDLING OR STORING GASOLINE. NEVER FILL THE GAS TANK WHILE THE ENGINE IS RUNNING OR HOT. ALLOW THE ENGINE TO COOL BEFORE ADDING GAS. CLEAN ANY SPILLED GASOLINE.**

4. Remove all debris from guard, deck, muffler area, head cooling fins, and throttle controls.
5. Check the air cleaner element. Insure that the air filter is clean.
6. Familiarize yourself with all operating controls.



DO NOT ATTEMPT TO START OR OPERATE THIS MOWER UNTIL YOU ARE COMPLETELY FAMILIAR WITH LOCATION AND USE OF EACH CONTROL NECESSARY TO OPERATE THIS MOWER. YOU MUST KNOW HOW TO STOP THIS MACHINE BEFORE YOU START IT. EACH TIME PRIOR TO STARTING, CHECK THE THROTTLE ASSEMBLY TO INSURE IT IS WORKING PROPERLY.

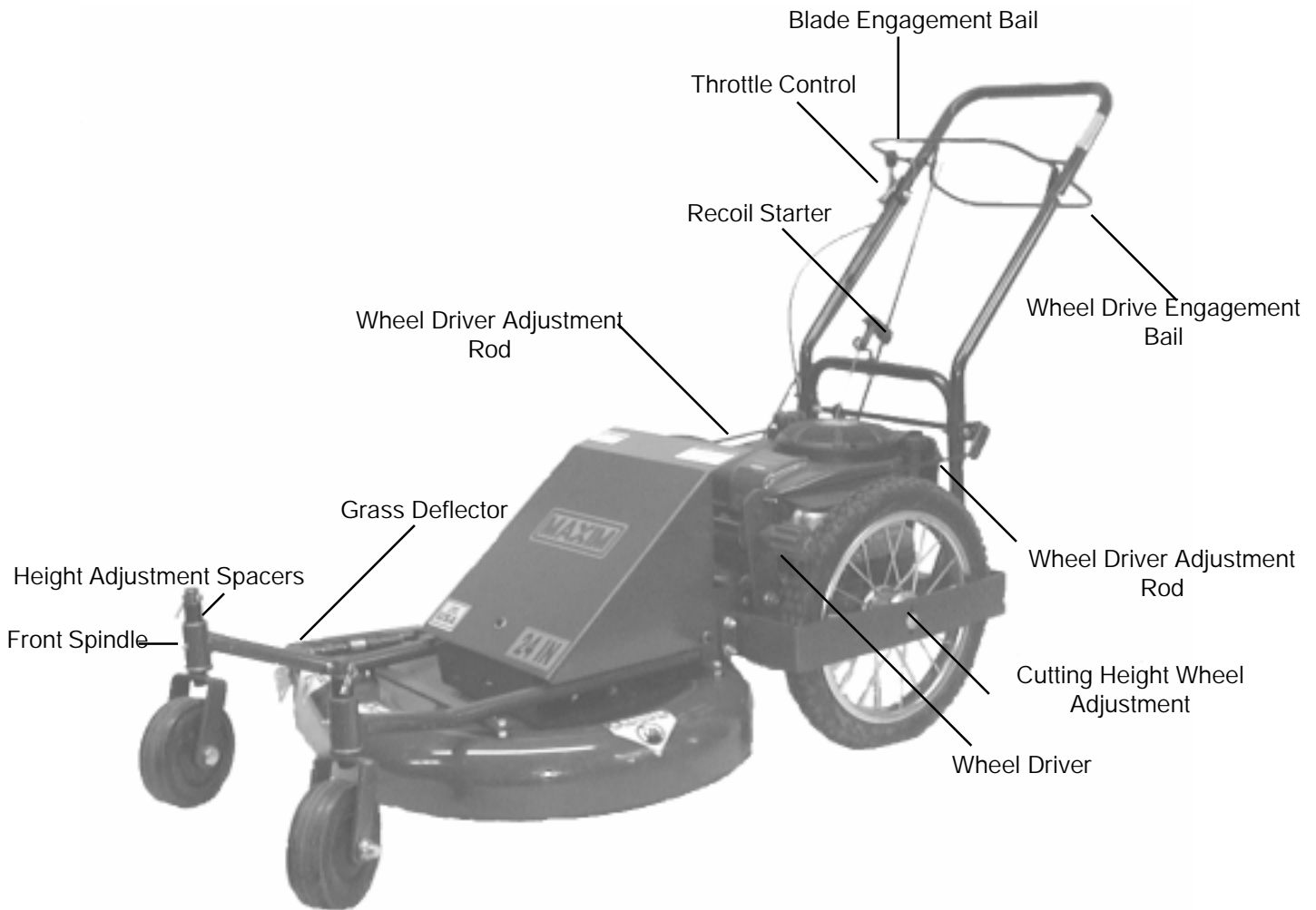


Figure 2

### Operating Controls

1. Blade Engagement Bail -- Controls the rotation of the blade. To begin cutting pull the control bail towards the handle. To stop cutting release the control bail. It will return to the open position and disengage the blade.
2. Throttle Control Lever -- Controls the speed of the engine or stops the engine. To stop the engine move the throttle back towards the operator to the stop or off position. The faster the engine runs, the faster the blade will rotate.
3. Wheel Drive Engagement Blade -- Controls the self propel feature of the mower. Pull the bail up to engage the wheel drive. Release the bail to push mower.
4. Grass Deflector -- Grass deflector is a safety device that will help prevent flying debris. Do not operate mower without the grass deflector.



NEVER OPERATE THE MOWER WITHOUT PROPER GUARDS, PLATES, OR OTHER SAFETY DEVICES IN PLACE. SERIOUS INJURY OR DEATH COULD RESULT.



EVEN THOUGH THIS MOWER IS EQUIPPED WITH SAFETY SHIELDS, IT IS POSSIBLE FOR DEBRIS TO BE THROWN FROM THE MOWER. WEAR SAFETY GLASSES AT ALL TIMES AND KEEP THE MOWING AREA CLEAR OF BYSTANDERS ESPECIALLY SMALL CHILDREN AND PETS.

## Starting the engine

1. Read engine owner's manual for complete starting instruction. Do not operate this MOWER without reading the engine owner's manual.
2. Move the throttle control lever forward to the START or FAST position.
3. Push primer bulb firmly 3 times before starting engine. Note: Priming is usually unnecessary when restarting a warm engine.
4. Grasp rope handle and pull slowly until resistance is felt. Then pull cord rapidly to overcome compression, prevent kickback and start engine.
5. Operate engine in the fast throttle position.

## Adjustments and Maintenance

### Cut Height Adjustment

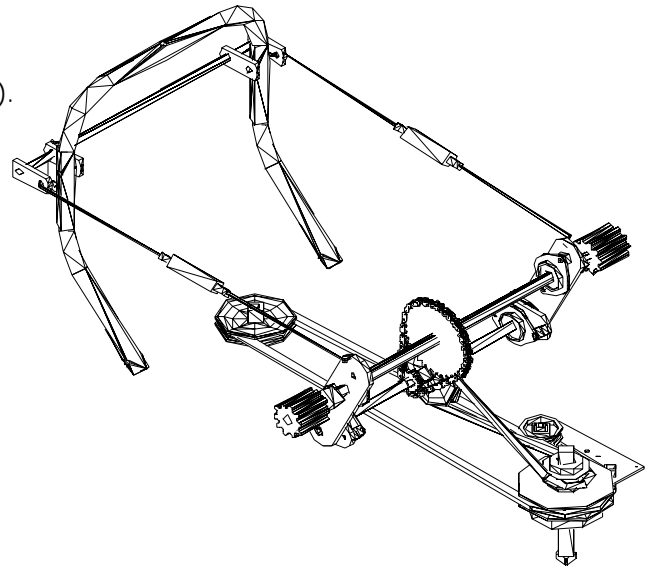
This mower is equipped with three cutting heights. To adjust the cutting height you must make two separate adjustments:

1. Front Adjustment
  - Remove hair pin from the clevis pin on each side (Ref. 9 Figure 4).
  - Remove clevis pin from spindle.
  - Remove spacers from wheel spindle assembly.
  - Remove wheel spindle assembly.
  - Place spacer(s) on the wheel spindle assembly.
  - Insert spindle into spindle housing
  - Replace clevis pin and cotter pin.
2. Rear Adjustment
  - Loosen bolt and nut on rear wheels (Ref. 13 Figure 4).
  - Lower or raise wheel in slotted wheel band
  - Tighten nuts.

Figure 3

### Self Propelled Drive Belt

1. Turn engine off. Disconnect spark plug.
2. Remove belt guard by removing three screws.
3. Remove 4 1/4" nuts on Lower Bearing Flange (Ref. 57 Figure 4).
4. Before removing the belt make note of the way the belt is twisted. An improperly twisted belt will cause the mower to reverse instead of move forward. Remove belt.
5. Replace belt crossing from right side to left (Standing in operator's position) around self propel drive pulley (Fig.3).
6. Replace bolts on Bearing Flange.
7. Adjust belt tension to 1/2" play and tighten nuts.



### Blade Belt

1. Turn engine off. Disconnect spark plug.
2. Loosen bolts on Bearing Flange (Ref. 57 Figure 3).
3. Slide Shaft forward.
4. Remove belt from self propelled drive pulley.
5. Remove blade belt from lower pulley (Ref. 44 Figure 3).
6. Remove belt guide under engine (Ref. 17 Figure 3).
7. Remove belt from engine pulley(Ref.16 Figure 3).
8. Install belt.
9. Replace belt guide and drive belt. Adjust drive belt and tighten screws.

### Blade

The blade on your mower should be replaced if it becomes bent or chipped. If blade becomes dull, it should be sharpened and balanced or replaced.

1. Turn engine off. Disconnect spark plug.
2. Wear gloves for cleaning or other blade maintenance.
3. To sharpen and balance blade remove center 3/8 bolt. Do not remove the outer 2 bolts.
4. To replace blade, wrap blade in newspaper. Remove all three screws. Replace blade.
5. Tighten all bolts to 70-80 foot pounds torque. Check blade clearance from blade cutter housing. Blade clearance must be 1/8" to 1/4".

### Maintenance Schedule

1. Before each use: Check engine oil level, Check mower blade, Clean engine and machine of excess grass and oil, Remove debris from guard and deck, Check Air Pressure in Tires, and Check nuts and bolts for appropriate tightness.
2. After every 25 hours: Check spark plug, Change engine oil, Change or clean air filter, Lubricate wheel bearings
3. After 6 months: Check and replace worn belts.

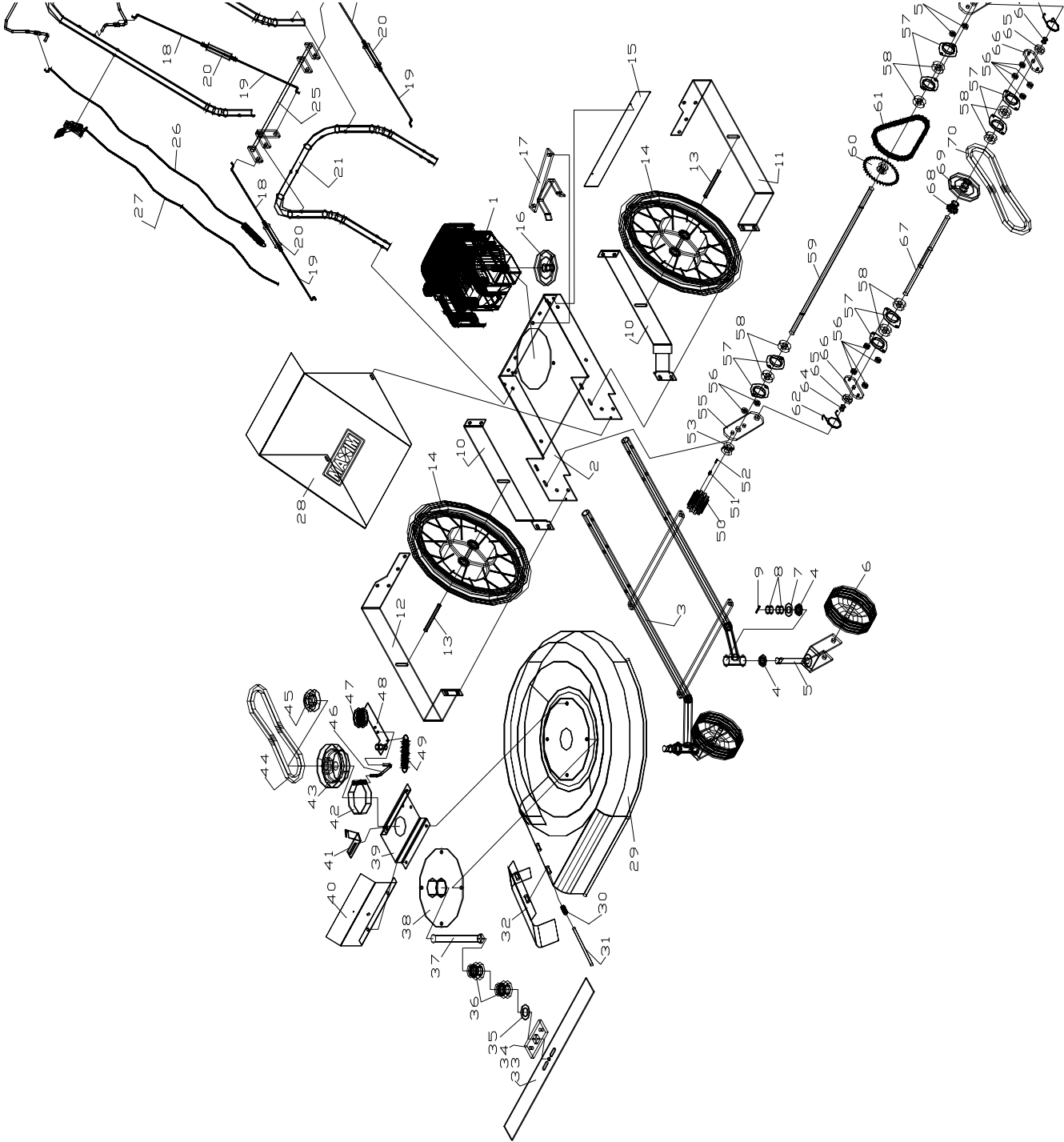


Figure 4

Reference	Part Number	Quantity	Description	Reference	Part Number	Quantity	Description
1	132119	1	Engine	37	131112	1	Blade Shaft
2	359663	1	Chassis	38	359670	1	Spindle Hub
3	359748	1	Frame Weldment	39	359669	1	Anchor Plate
4	140109	4	Bushing	40	359668	1	Bracket, Belt Guard
5	359750	2	Caster Weldment	41	359665	1	Cable Bracket
6	162064	2	6" Wheel	42	359530	1	Brake Band
7	455052	2	Flat Washer	43	358407	1	Pulley, Brake Drum
8	359749	4	Spacer	44	272222	1	Belt, Blade
9	461474	2	Clevis Pin	45	336656	1	2" Pulley
10	359563	2	Wheel Support, Inner	46	359558	1	Link, Brake Band
11	359561	1	LH Wheel Support	47	359321	1	Idle Pulley
12	359562	1	RH Wheel Support	48	359557	1	Idle Arm Weldment
13	359560	2	Spacer, Wheel	49	359358	1	Spring
14	162102	2	16" Wheel Assembly	50	359540	2	Driver Wheel
15	146124	1	Drag Shield	51	359543	2	Driver Pin
16	336654	1	Engine Pulley	52	359544	2	Spring, Driver
17	358408	1	Belt Guide Engine	53	359541	1	Ratchet, RH
18	358405	3	Rod, Left Hand Thread	54	359542	1	Ratchet, LH
19	358406	3	Rod, R/H Thread	55	359566	2	Arm, Driver Support
20	360202	2	Turnbuckle	56	359535	1	Spacer
21	358401	1	Lower Handle	57	140112	8	Flange
22	358400	1	Upper Handle	58	140106	4	Bearing and Collar
23	358403	1	Lever, Self Propel	59	359564	1	Shaft, Drive
24	358402	1	Lever, Blade Control	60	359550	1	Sprocket
25	358404	1	Rear Drive Assembly	61	359545	1	Chain # 35
26	162055	1	Capro Control	62	359552	1	RH Torsion Spring
27	162046	1	Throttle Control	63	359553	1	LH Torsion Spring
28	359582	1	Pulley Cover	64	359537	2	Spacer
29	359676	1	24" Deck Weldment	65	359536	2	Spacer
30	145114-D	1	Spring	66	359567	2	Plate, Arm Pivot
31	145114-E	1	Clevis Pin	67	359568	1	Idle Shaft
32	359675	1	Grass Deflector	68	359551	1	Sprocket Driver
33	145100	1	Blade	69	336655	1	4" Pulley
34	131111	1	Blade Bar	70	272209	1	Belt, Wheel Drive
35	131107	1	Spacer				
36	145105	2	Blade Bearing				

## Limited Warranty

Maxim Manufacturing Corporation, through its dealers will repair or replace any part, or parts of the M624BITSPS frame or handles that are defective in material or workmanship or both. Transportation charges on parts submitted for repair or replacement under this Warranty must be borne by purchaser. The original sales receipt must be submitted as proof of purchase date. The sales receipt will be returned. Maxim Manufacturing Corporation assumes no liability for labor charges made in performance of this warranty.

The Warranty periods are as follows:

- A. Frame for 1 Year
- B. Handles for 1 Year

The Throttle Cable, Tires, Fasteners, Blade, Tires, and Belt are not warranted because during normal service they are subject to wear.

The Warranty on the Frame is Void if:

- A. Frame is broken or bent due to abuse.
- B. Wheels are bent or broken due to impact.
- C. Altering of engine or its components has occurred.

All warranties are voided if the Mower has been altered, rented, used under abnormal conditions, or subject to abuse, misuse, neglect, or improper maintenance.

The Engine is warranted by the engine manufacturer, not by Maxim Manufacturing Corporation. See Engine Owner's Manual for information regarding engine warranty.

Should you experience problems with your Mower take it back to your authorized Maxim dealer or distributor to make warranty claims.

Maxim Manufacturing is not liable for any damage claim or liability claim, personal or otherwise, resulting from the operation of this vehicle in any way.