

# Worksman BIG BONES 22 Bicycle Owner's Manual and Parts List

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Parts list BB22BIKE0919

**Models BB22 BIG BONES 22 BIG MAN ON CAMPUS BICYCLE - GO BIG OR GO HOME**



Congratulations! You have purchased an American-made Worksman BIG BONES bicycle! Worksman bicycles are considered the most durable bicycles available. Proudly Made in the Worksman South Carolina Factory.

Before assembling, read this manual AND watch the instructional video on our website.

([http://worksmancycles.com/shopsite\\_sc/store/html/owners-manuals.html](http://worksmancycles.com/shopsite_sc/store/html/owners-manuals.html)) Follow the rules of safe riding, and keep your Worksman in top shape by replacing worn parts with genuine Worksman parts. (Do not use generic bicycle parts.) With simple maintenance, your Worksman will perform reliably year after

year. Your bicycle has been hand-made in the USA. Our reputation rides along with you, so your ultimate satisfaction is our goal.

- ***This manual is intended as an assembly and maintenance guideline for a professional and qualified bicycle mechanic. Failure to have this cycle professionally assembled could result in injury or death.***

## **Worksman Heavy-Duty Bicycle Parts List** (Subject to change without notice as we are constantly seeking ways to improve our products.)

*Note: Worksman began using ED (electrodeposition) black electro-coated components as standard equipment, including black handlebars, crank parts, kickstands, and stems to help prevent rust and increase parts lifespan.*

### **Frame, Fork and Related "Steering" Parts** (Specify color of frames and forks when ordering.)

<u>Part #</u>	<u>Description</u>	<u>Part #</u>	<u>Description</u>
3600A-022	Big Bones 22+Frame( Curved top tube)		
3600A-r22	Big Bones Frame (22+, Straight top[ tube)		
60HD-BB22	Fork (26+ ) :238MM HEAD		
160B	Axle Retention Washer (Front, Hooked)		
F816	Axle Washer (Front, Standard)		
55-BLK	Handlebar (24+, Black Low rise)		
55A-BLK	Stem (5½+, Black,		
55H-BLK	Stem (11+, Black,		
55F-BLK	Handlebar (9+Jr. High Rise, Black)		
<i>Headset and Other Parts</i>			
50A	Headset Complete (48,49,52,53,54)	48	Headset Cups (pair)
49	Headset Bearings (pair)	51	Bottom Cone (Presses on fork)
52	Top Adjusting Cone (threaded)	53	Key Washer
54	Fork Top Lock nut	55B	Handgrips (pair)
I1093	Grips: White w/ Brown Trim	I1094	Grips: Cream w/ Black Trim
I1095	Grips: White w/ Black Trim	55-LTR-BWN	Grips: Leather Stitched
5031	Front Reflector Bracket	5030B	Reflector kit with brackets

### **Crank Parts (Pedal Section) and Chains** (Chains include connecting links.)

<u>Part #</u>	<u>Description</u>	<u>Part #</u>	<u>Description</u>
1265	Crank Parts (1266,1268,1269,1271,1272,1273,1274)	1265BMXS	Deluxe Sealed Crank Set (Upgrade)
1266	Crank Bearings (pair)	1268	Cups for Crank Housing (pair)
1267	Complete Crank Set (44T blk sprocket & crank, 1265)	1269	Stationary Washer (inside)
1267D	Complete Crank Set (36T blk sprocket & crank, 1265)		
1271	Key Washer (outside)	1272	Adjusting Cone (threaded, outside)
1273	Stationary Cone (inside)	1274	Crank Locknut
1275	Crank (one piece, forged, 6½+, plated)	1275-EDB	Crank (one piece, forged, 6½+, black)
1380	Sprocket 44 Tooth (3/16+, Chrome)	1380-EDB	Sprocket 44 Tooth (3/16+, Black)

1380D	Sprocket 36 Tooth (3/16+, Chrome)	1380D-EDB	Sprocket 36 Tooth (3/16+, Black)
4910A	Chainguard (Chrome plated, optional)	4910P-BLK	Chainguard (Black plastic)
7217	Pedal Set (pair)	7217-41557	Pedal Set - Alloy Platform (Optional)
7217-EXT	Pedal Extenders (mounts pedals further apart)	4914C	Chain (3/16x105 links . 36T sprocket)
4914A	Chain Connecting (Master) Link (1/2x3/16+)	4914D	Chain (3/16x109 links . 44T sprocket)
4915	Chain Adjuster (Single-speed)	4915E	Chain Adjusters (Multi-speed)

### **Baskets, Racks and Cabinets**

<b><u>Part #</u></b>	<b><u>Description</u></b>	<b><u>Part #</u></b>	<b><u>Description</u></b>
4919-26-RET-CP	Retro Rack (Rear, Chrome)	4919-26-RET-BLK	Retro Rack (Rear, Black)
133WH	Removable Front Basket (14.5x9.5x9+)	139	Front Wire Basket (18x13x6+)
7226	Twin Carrier Basket w/ Rack (Rear)	7228	Front Wire Basket (21x15x9+)
7227-P	Perforated Flat Steel Basket (LGB/LGG)	7233	Support Arms for Low Gravity (pair)
3927P	Top Opening Pizza Box (20x20x12+- LGP)	3927PS	Side Open Pizza Box (20x20x12+LGPS)
7300	Wood Panel for LGP Basket	7300G	Wood Panel for LGP Cabinet

### **Drum Brake Parts** (Not all Workman bikes include drum brakes. Old (loose balls) and new (pressed bearing) style parts shown.)

<b><u>Part #</u></b>	<b><u>Description</u></b>	<b><u>Part #</u></b>	<b><u>Description</u></b>
<i>Front</i>			
L500-F	Front Drum Brake Hub (Hub only)	L901	Rear Drum Brake Hub (Freewheel)
L509	Axle (for pressed bearing)	L909	Rear Drum Brake Axle Parts Set
L725-1	Drum Brake Plate Kit w/ Brake Pads	L917	Rear Drum Brake Bearings
L517	Pressed Bearing (each)	L926	Rear Drum Brake Plate Kit
F719	Brake Cable (Front 42.5+) w/ F769 & F770	F719-SBST	Brake Cable (Front 55+) w/ F769 & F770
60STR	Brake Arm Strap for Non-Insert Fork	F818	Arm Band Assembly for Rear Brake Arm
<i>Old-Style Front Drum Brake Parts (with 11 loose bearings on each side. Subject to availability.)</i>			
F817M	Loose Bearings (11 loose balls . 22 needed)	L709	Front Drum Brake Axle w/ Races
L918	Bearing Cup (pair)		
<i>Front and Rear</i>			
F769	Anchor Bolt Assembly for F719 Cable	F770	Adjusting Barrel for F719 Cable
L752R	Brake Lever (Right) w/ Parking Lock	L752L	Brake Lever (Left) w/ Parking Lock
L815	Drum Brake Outside Axle Nut (each)	F851	Brake Cable (Rear 65+) w/ F769 & F770

### **Seats, Seatpost, and Parts**

<b><u>Part #</u></b>	<b><u>Description</u></b>	<b><u>Part #</u></b>	<b><u>Description</u></b>
4912V	Saddle (10+w/ springs - standard)	6911V	Saddle (13+extra-wide w/ springs)
5912MW-BLK	Sport Saddle: Black w/ White Trim	5912MW-BWN	Sport Saddle: Brown w/ White Trim
5912MW-CRM	Sport Saddle: Cream w/ Black Trim	4912-LEA-WTC	Saddle: Tan Leather w/ Black Trim
4908C	Seatpost (7/8+)	4908C-S	Seatpost: Solid (7/8+)
7913	Seat Clamp (seat to seatpost)	4909	Bolt, Nut, Washer for 4911C Clamp
4911C	Seatpost Clamp (seatpost to frame)	4911B	Seatpost Clamp . Quick Release

### **Fenders, Kickstands and Parts** (As of 2013, INB/ING/M2600 bikes come with rust and dent-proof polycarbonate fenders!)

<b><u>Part #</u></b>	<b><u>Description</u></b>	<b><u>Part #</u></b>	<b><u>Description</u></b>
<i>Black Resin (Standard on industrial models)</i>			
82P-BLK	Front Fender (26+Black Polycarbonate)	4901P-BLK	Rear Fender (26+Black Polycarbonate)
82P-BLK-C	Front fender with all hardware attached	4901P-BLK-C	Rear fender with all hardware attached
FSB26P	Fender Set (Poly) . Front and Rear Complete (w/ all hardware)		
<i>Chrome</i>			
82	Front Fender (26+)	4901	Rear Fender (26+)
82-C	Front fender with all hardware attached	4901-C	Rear fender with all hardware attached
FSB26	Fender Set (Chrome) . Front and Rear Complete (w/ all hardware)		
<i>Fender Hardware</i>			
83A	Front/Rear Fender U-Brace (26+)	4905	Bolt, Nut, Washer (rear fender to brace)
95	Front % <sub>8</sub> +Bracket (fender to fork)	4907	Bolt, Nut, Washer (U-brace to fender)
4803K	Front Fender Hardware Kit (95, 4907, 4907A)	4907A	Bolt, Nut, Washer (% <sub>8</sub> +bracket to fork)
<i>Kickstands (for 26+bikes)</i>			
7229A	Kickstand (26+bikes - Plated)	7229A-BLK	Kickstand (26+bikes - Black)
<i>Low Gravity Fender and Kickstand Parts</i>			
7202	Front Fender (20+ . Low Gravity)	4904L	Front Fender Brace (20+ . Low Gravity)
7230	Kickstand for Low Gravity (for front fork)	7204	Kickstand Stop for Low Gravity Fender
7231R	Kickstand Spring for Low Gravity (Right)	7231L	Kickstand Spring for Low Gravity (Left)
7232	Bolt and Spacer for 7230		

**Front Knock-Out Wheel Parts** (For bikes equipped with the front Worksmen Knock-Out hub rather than the front drum brake.)

<u>Part #</u>	<u>Description</u>	<u>Part #</u>	<u>Description</u>
100QN	Front Knock-Out Hub w/ Axle and Parts	102	Key Washer (w/ inner tab)
103	Ball Cups for Hub (pair)	104	Quill Tube
105	Outside Adjusting Cone	108	Axle Bolt w/ Nut (Low Gravity)
109	Dust Washer	108A	Axle w/ Nuts (INB, ING, M2600)
112	Axle Spacer Washer	113	Lock Nut
110	Axle Parts Set (102,103,104,105,109,113,146)	146	Wheel Bearings (pair)
SS17	Axle Nut (serrated / outside)		

**Wheels, Tires, Tubes, and Wheel Parts** (Alloy wheels include stainless steel spokes and zinc-plated brass nipples.)

Add "KVPR" to the wheel part number that you need to upgrade to Kevlar Tires and Puncture Resistant tubes!

<u>Part #</u>	<u>Description</u>	<u>Part #</u>	<u>Description</u>
4131Q	26+Front Wheel w/ Air Tire	77	26+Front Drum Brake Wheel w/ Air Tire
4131QA	26+Front Wheel w/o Tire	77A	26+Front Drum Brake Wheel w/o Tire
4131QS	26+Front Wheel w/ Solid Tire	77S	26+Front Drum Brake Wheel w/ Solid Tire
4131QAAL	26+Alloy Front Wheel w/o Tire	77CAR	26+Alloy Front Drum Brake Wheel
4136	26+Rear Coaster Brake Wheel w/ Air Tire		
4136A	26+Rear Coaster Brake Wheel w/o Tire		
4136S	26+Rear Coaster Brake Wheel w/ Solid Tire		
4136ASS	26+Alloy Rear Coaster Brake Wheel		
77R	26+Rear Drum Brake Wheel w/ Air Tire		
77RA	26+Rear Drum Brake Wheel w/o Tire	SMX263CB	26+3 Spd Rear Coaster Brake Wheel
77RS	26+Rear Drum Brake Wheel w/ Solid Tire	SMX263CBAL	26+Alloy 3 Spd Rear Coaster Brake Wheel
77RCAR	26+Alloy Rear Drum Brake Wheel	SMX267CB	26+7 Speed Rear Coaster Brake Wheel
SS721	Coaster Brake Repair Kit (internal parts)	SMX267CBAL	26+Alloy 7 Spd Rear Coaster Brk Wheel
300	Coaster Brake Hub (36 hole x .120+)	401	3 Speed Coaster Brake Hub (36 x .120+)
4922-372	26+x 2.35+Fat Franki Tire - Cream	4922-376	26+x 2.35+Fat Franki Tire - Brown
4922A	26+x 2.125+Tire	4922AKV	26+x 2.125+Kevlar Tire
4922AWSW	26+x 2.125+White Wall Tire	4939A	26+Solid Airless Tire
4923A	26+x 2.125+Tube	6023A	26+x 2.125+Puncture Resistant Tube
1014A	Spokes / Nipples for 26+Wheels (Min. 36)	1016	26x2.125+WTC Clincher Rim (Chrome)
1016AC	26+x 2.125+WTC Clincher Rim (Alloy)	1017	Rim Strip 26+
SS12N-1	Shimano Nexus Shifter Cable & Shifter	SS01	Axle Nut (Rear Shimano Coaster Brake)

**Safety and Comfort Accessories**

<u>Part #</u>	<u>Description</u>	<u>Part #</u>	<u>Description</u>
3979	Ding Dong Chime Bell	303	Squeeze Bulb Horn (chrome w/ rubber)
3973	Mega-Horn (battery operated)	201	Cable and Lock set (with keyed padlock)
4963	Rear View Mirror (Chrome, rectangular)	5030B	Reflector Kit w/ Brackets
3978	Safety Flag on Pole	P19	Bicycle Helmet
101710	Flashing Strobe Light (clear lens)	101714	Flashing Strobe Light (red lens)
7217-41197	Pedals with Velcro Foot Straps (pair)	3975	Generator Light Set
1006	Air Foot Pump	1000	Spoke Wrench
202	Mini-Frame Pump w/ Attachment Strap	2000	Chain Rivet Remover Tool
1265TW	Crank Cone Wrench	95021	Water Bottle w/ Cage, Attachment Strap
1001	Pedal Wrench	7917A	Backrest w/ Mounting Hardware
6001A	Patch Kit (5)	3976	Battery Operated Headlight
7217GS12	Lowspack+Flashing Pedals . Flash without batteries when you pedal!		

**ASSEMBLY INSTRUCTIONS FOR WORKSMAN HEAVY-DUTY BICYCLES: (FOR LOW-GRAVITY BIKES, SEE ATTACHED ASSEMBLY SHEET.)**

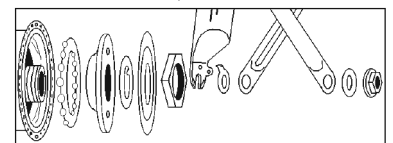
Please read this manual carefully prior to performing the simple finishing assembly and prior to riding. We recommend that a qualified bicycle mechanic assemble this cycle. Carefully remove the bicycle from the carton. You will notice the bicycle is mostly pre-assembled at the factory.

**TO ATTACH FRONT FORK/WHEEL ASSEMBLY TO THE FRAME: (If you have a front drum brake, proceed to Headset instructions.)**

- 1) Attach front fender to fork.
- 2) Slide one axle washer over axle bolt. Insert axle through basket leg (optional), fender brace, and retention clip.
- 3) Insert axle through front wheel hub and out other side. Install retention clip, fender brace, basket leg (if ordered), washer, and axle nut.

**Headset:**

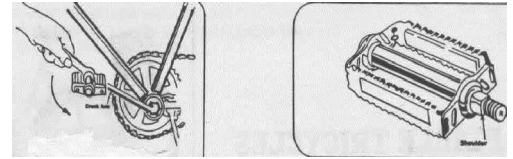
- 1) Grease headset cups (48) with Rustolene 200 or equal. Bearings (49) are pre-greased at the factory, but it is wise to add lubrication before assembly.
- 2) Place one headset bearing (49) onto fork steerer tube with balls facing up. Slide steerer tube into frame.
- 3) Place the other bearing on top of fork tube with balls facing down towards the cup (#48), which is already pressed onto the frame.
- 4) Install top-adjusting cone (52) onto treaded fork steering tube. Hand-tighten, making sure bearings do not bind. Turn back ¼ turn.
- 5) Install fork key washer (53) and reflector bracket on top of the adjusting cone with tip of washer in slot on steering tube.
- 6) Install head lock nut (54) and securely tighten. Make sure that the fork rotates freely without being loose. Excess play or resistance must be adjusted. Failure to adjust properly can lead to improper steering response.



- 7) Install handlebar stem (55A) into the fork steering tube with the handlebar clamp facing forward. The stem must be inserted far enough to reach the minimum insertion line. Tighten the stem bolt slightly at this point. Loosen the handlebar clamp nut and slide the handlebar through the clamp, centering the knurled center section of the handlebar into the clamp.
- 8) Position the handlebar to the desired angle and tighten clamp securely. Recommended torque is 300 IN. LBS. Adjust the handlebar rotation so that it is straight with the front wheel. Tighten stem bolt securely. Recommended torque 240 IN. LBS. Be sure not to over tighten, as damage to the parts may occur causing steering failure.
- 9) If a drum brake was ordered, attach brake lever to handlebar. Make sure brake cable is not tangled in any way.

#### INSTALLING PEDALS AND KICKSTAND:

- 1) Install kickstand.
- 2) Pedals are marked on the shaft with either an “L” or “R” denoting left or right. The “R” pedal fits on the right (sprocket side) of the crank arm. Tighten clockwise. The “L” pedal fits on the left side of the crank arm. **Tighten counter-clockwise (left-hand thread).** Securely tighten. Recommended torque 275 IN. LBS. **CAUTION: Tightening in the wrong direction will damage the crank threads and will not be covered under warranty.**



#### SEAT ADJUSTMENTS:

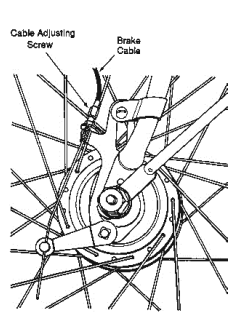
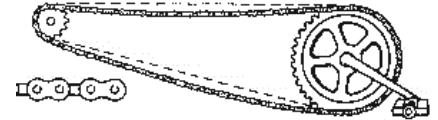
Adjust the seat height to your desired level by loosening the seat clamp nut at the top of the frame's seat tube. Re-tighten at desired height. Make sure a minimum of 3 1/2+ of the post remains in the frame tube. **THE MINIMUM INSERTION LINE ETCHED IN THE SEATPOST MUST NOT BE VISIBLE.** Never adjust post above this level. Adjust angle of seat with nose raised slightly. Tighten seat clamp securely. (240 IN. LBS.)

#### MAINTENANCE TIPS:

Always inspect your Worksmen Cycle to ensure that all nuts, bolts, screws and hardware are tight and that no parts are worn or damaged. Do not attempt to straighten bent forks or frames.

##### Chain:

Lubricate chain once a month or as needed with light oil. Replace sprockets when teeth become worn, bent or broken. Keep chain adjusted so there is no more than 3/8+slack. Note that we make the chains tight at the factory, as we do know they will stretch during the break-in period. Lubricate crank parts every six months. Replace pedals when the surface is worn or if axle becomes light+or frozen.



##### Drum Brake:

Some Worksmen bicycles are equipped with a front drum brake. It is engaged by squeezing the hand lever on the handlebar. To use Park+feature, when cycle is completely stopped, squeeze hand lever and push in parking plunger button on lever. To disengage, simply squeeze lever until parking plunger button releases. Drum brakes are pre-adjusted at the factory. Readjust the cable tension as necessary using the adjusting barrel so that wheel spins freely and stops when brake is applied. Always replace worn brake cables and damaged hand levers.

##### Coaster Brake (if applicable):

Foot activated coaster brakes are easy to use and reliable. To activate this internal brake, reverse the pedaling motion until the brake engages. To avoid skidding and maintain control, apply care when braking. This is especially true on wet surfaces. Apply brakes gently, gradually increasing pressure. Replace coaster brakes when they become worn. Check chain tension regularly. Coaster brake hubs may make a vibrating noise under braking until they are broken in. For multi-speed units, pause pedaling when shifting to help mesh gears. (Let the cycle coast.) Multi-speed hubs make a slight ticking sound.

**Tires:** Always check for wear or damage. Proper level of inflation is noted on the tire. Replace worn or cut tires and leaking tubes immediately.

**LIMITED WARRANTY:** This cycle is warranted against faulty parts under the following conditions: this warranty does not cover any failure due to accident, abuse, misuse, neglect, normal wear and tear, or improper assembly. The entire frame, including all welded joints, is warranted to be free from defects and material for one year while in possession of the original purchaser. All other parts on this cycle, except tires and tubes, are warranted for 90 days from the date of purchase. Repair and replacement of these parts is to be according to the worksmen cycles parts and service procedures and must be handled directly through the source where the cycle was purchased. If the Worksmen dealer determines that it is defective, either repair or replacement will be made at no cost except the cost of transportation and labor charges (if any). Unauthorized repairs or replacement automatically voids warranty. Proper maintenance is required for warranty to be valid. In the event that it was determined that the warranty claim is the result of misuse, abuse, improper maintenance, or simply not defective or beyond the warranty period, Worksmen Cycles or the dealer will advise you as to the cost of repair, replacement or labor prior to performing any work or replacing any parts. If you choose not to have the dealer or worksmen cycles perform the work, the parts will be returned to you at your expense or discarded if no reply is received within 2 weeks of notification. The sole responsibility of the manufacturer to the terms of this warranty, if any, shall be the repair and/or replacement of the parts as indicated above. The liability of the manufacturer shall in no event exceed the original purchase price of the product, and the manufacturer shall not be responsible for any consequential damages of any nature, including, but not by way of limitation, damages for personal injury or property. This statement constitutes the exclusive expression of warranties by the manufacturer and is in lieu of any or all other warranties such as expressed warranties, implied warranties, including but not limited to warranties of merchantability, and fitness or purpose, are limited in duration for one year from the date of purchase of the frame only and 90 days for all other parts, except tires and tubes which are not warranted. Worksmen Trading Corporation is the manufacturer. Misuse of the cycle, including off road riding, installation of motors or power assists, alterations, or repairs using parts other than Worksmen Cycle parts voids the warranty. Worksmen is not responsible for maintaining records of serial numbers. Void where prohibited by state law.

#### RULES FOR SAFE RIDING AND RESPONSIBLE OPERATION:

Worksmen Cycles strongly advises that our cycles be assembled by A QUALIFIED MECHANIC. IF YOU ASSEMBLE YOUR WORKSMAN CYCLE YOURSELF YOU ARE PUTTING YOURSELF FORWARD AS A QUALIFIED MECHANIC. A qualified mechanic can assist to make sure that your cycle is assembled to all customary procedures and to make sure that it will be operating correctly. They will check proper operation of all moving parts, goodness of fit of those parts, and make sure that all nuts and bolts are properly torqued so they are not too tight or loose, come apart, or strip and become a potential danger. Even components that come preassembled at the factory should be rechecked. WORKSMAN ADVISES THAT RIDING A BICYCLE CAN POTENTIALLY BE HAZARDOUS TO YOUR HEALTH. NOT FOLLOWING GENERALLY ACCEPTED RULES OF THE ROAD, OR IMPROPER ASSEMBLY OF YOUR CYCLE, MAY RESULT IN INJURY OR DEATH. WEAR A HELMET AT ALL TIMES. KNOW THE CYCLING RULES OF THE ROAD AS DIRECTED BY LOCAL AND STATE GOVERNMENTS. Have your cycle periodically maintained. Check all moving parts each time you ride. You have certain specific rights as a purchaser of this cycle. However, if you do the assembly yourself you may take on your shoulders certain responsibilities. This information is provided as a service of your rights and responsibilities as an owner. NOTE: THIS INFORMATION IS PROVIDED AS IT APPLIES NOT ONLY TO WORKSMAN CYCLES BUT TO CYCLES PROVIDED BY OTHER CYCLE MANUFACTURERS AS WELL.

- Operator is responsible for required maintenance and for observing all traffic regulations in the operating environment. (Stop signs, etc.)
- Keep to the right and in a straight line. Ride in single file. Operate cycle at slow speeds, particularly in high traffic areas.
- Do not ride outdoors at night, and have appropriate signaling device as needed. (We recommend the 3973 Mega Horn.)
- Give pedestrians the Right of Way. Always look around you to understand the riding environment and hazards.
- Do not carry passengers, and check brakes prior to riding. Never ride the cycle if there are known repairs required.
- Slow down when approaching turns or intersections. Use proper hand signals when turning or stopping.
- Recommended safety options include, but are not limited to, an approved helmet, audible warning device, front/rear lights and/or reflectors.
- Do not exceed the recommended weight capacity. (350 lbs., including the rider.) Always secure cargo with appropriate tie down straps.
- Wipe surface of cycle clean and dry when exposed to corrosive substances or environment.
- Operators of cycles should be in good physical condition. Ride at your own risk.
- Wear proper riding attire. Check shoelaces and pant legs prior to riding so they do not become engaged in the chain and sprocket.
- Ride only on smooth, paved surfaces. Do not use off road. Always keep both hands on the handlebars. [www.worksmancycles.com](http://www.worksmancycles.com)

800-962-BIKE

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