# Worksman Front-Loader Tricycles - Assembly Manual and Parts List

Worksman Cycles . 94-15 100<sup>th</sup> Street . Ozone Park, NY 11416 (888) 3-WHEELER . www.worksmancycles.com









Models STPT, U, SUD, ICT

Thank you for choosing your Worksman Front-Loader Tricycle. Your new Worksman business cycle is an American-made work vehicle with over 100 years of heavy duty, cargo-lugging experience in hundreds of industries around the world! Worksman Front-Loaders are incredibly durable and, with proper maintenance, will lead to decades of reliable service.

Since we use heavy-duty components, and not standard bicycle parts, it is important that only Worksman factory replacement parts be used when repairing your cycle. Ride safely, and follow the rules of the road.

This manual is designed to assist you in assembling the cycle and identifying proper parts when they need repair or replacement. **Assembly should always be performed by a qualified mechanic.** If you have any further questions, feel free to call our customer service department.

**ASSEMBLY INSTRUCTIONS:** These instructions are predominately for the front end of the tricycle. Read them fully prior to assembly. The rear chassis is fully assembled already with the exception of the seat and the pedals. You will need a socket set, a flat-head screwdriver, Phillips screwdriver, pliers, an adjustable wrench, and grease.

## Attaching Front Wheels to Axle: (See illustration.)

1) Grease the wheel hub cups (103) using Mobile Special Grease B or Rustolene 200 or equivalent bearing grease.

2) Insert one bearing (146) onto axle so that the balls of the bearings are facing the wheel hub cup. Place wheel onto the axle. Place second bearing onto the axle so that the balls face the cup of the wheel.

3) Thread on the outside adjusting cone (105). (Note: Left-hand thread!) Hand-tighten using a punch, ice pick, or small Phillips head screwdriver. After hand tightening back off a 1/4 turn.

4) Install key washer (102) and dust washer (109).

5) Install left hand lock nut (113). Thread down and tighten fully. Wheels should spin freely without any wobble left to right or up and down. If too tight or too loose, readjust adjusting cone.

## Attaching Axle to the Frame: (See illustration.)

1) Remove the top nut (113), adjusting cone (105), and washer (102) from the head spindle assembly, which is shipped in the head lug of the frame. The spindle will drop out through the bottom of the head lug.

2) Position the center of the axle into the front portion of the frame with the springmounting plates facing up and spindle set-screws (already installed) facing forward.

3) Re-insert the spindle with the two flat spots on the spindle facing the set-screws.

4) Tighten the set-screws against the flat spots on the spindle, thus holding the axle firmly in place.

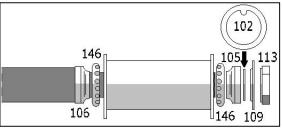
5) Re-install bearing (146), adjusting cone (105), keywasher (102), and locknut (113) as shown.

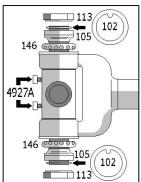
## Fender Installation: (See illustration.)

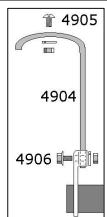
If your tricycle is equipped with fenders (4902A) for the front wheels, the axle will have a three pronged % wing+on each side upon which the individual % shaped steel fender braces (4904) are to be attached.

1) Using  $\frac{1}{4} + x \frac{3}{4} + \text{HEX}$  head bolts, lockwashers (shown), and servated nuts (4906), attach brace to wing.

2) Place fenders over the top of the braces, align holes, and use  $\frac{1}{4} + x \frac{1}{2} + ROUND$  head slotted screws on top of fender and the lockwashers and nuts (4905) on bottom.

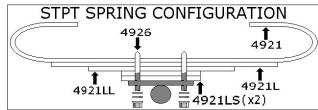


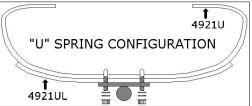




LOCKWASHER

## Mounting Leaf Springs to Axle: (See illustration.)





1) STPT - Position two short 4+spring spacers (4921LS) on the axle plate. (No short spacers on %J+) 2) STPT - Place the 4921LL (9+) and 4921L (17+) spring spacers on top of the short 4+spacers.

- %J+- Place the 4921UL (19+) curved spring spacer on top of the axle plate.
- 3) Place the leaf spring with the curve facing UP on top of the spacers, centering it on the axle.

4) Using both of the %4+bolts provided, clamp the spring and spacers through the axle plate and tighten. Be sure to put a lockwasher between the flat washer and the serrated hex nut.

5) Repeat for other side of axle.

## Attaching Platform or Cabinet to Leaf Springs:

NOTE: Make sure handlebar mount holes on platform or cabinet are facing the rear of the tricycle. <u>Platform</u>

1) Place platform onto springs, lining up the holes in the platform with the holes in the open springs.

2) Insert FLATHEAD elevator bolts through the platform and tighten using the flat washer, lockwasher, and serrated hex nut . in that order.

3) Tighten to pull bolt square through hole in platform to lock in place.

Cabinet

For cabinets, elevator bolts are already mounted through the undercarriage. The 2x4 wood strips, which protect these bolts, must be removed BEFORE positioning the cabinet onto the springs.

**Mounting the Handlebars:** Position handlebar, lining up the holes in handlebar with the holes in the platform or cabinet. Insert 5/16+X  $\frac{3}{4}+ROUND$ -HEAD bolts and hardware provided.

**Install Pedals:** Pedals are marked "R" or "L" on the threaded end of the pedal. Attempts to install the pedals on the wrong side or tighten in the wrong direction will damage the threads and will NOT be warranteed. 1) Slightly grease pedal threads prior to attaching to crankarms.

2) Install %R+pedal on right side and tighten CLOCKWISE.

3) Install <sup>%</sup>-pedal on left side and tighten COUNTER-CLOCKWISE.

## Install Seat and Seatpost:

1) Insert seatpost into seat clamp on bottom of seat. Do not tighten yet.

2) Install seatpost info frame. Do not tighten yet.

3) Adjust angle of seat with nose raised slightly. Tighten seat clamp bolt securely. (240 IN. LBS.)

4) Adjust the seat height to your desired level. Make sure a minimum of 3 1/2+of the post remains in the frame tube. Never adjust post above this level, which is marked on the seat post.

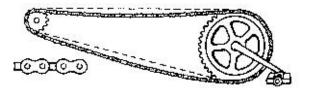
5) Tighten seat tube clamp at top of seat tube.

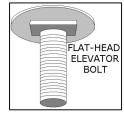
## MAINTENANCE TIPS:

Always inspect your Worksman 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 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 leave 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 **%** ight+ or frozen.







## Coaster Brake (if applicable):

FRONT LOAD TRICYCLES ARE INTENDED FOR FLAT AREAS. BECAUSE FRONT LOAD TRIKES HAVE ONLY A REAR BRAKE, USE CAUTION WHEN GOING DOWN SLIGHT GRADES. AND KEEP LIGHT PRESSURE ON THE BRAKE TO AVOID BUILDING UP TOO MUCH SPEED.

Foot-activated coaster brakes are reliable and easy to use. To activate the 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 when new until they are broken in. For three and seven-speed units, pause pedaling to help mesh gears. (Let the cycle coast.) This will make shifts smoother and will reduce wear and tear on the hub. Do not shift when pedals are not moving as damage could occur.

#### Tires:

Always check for worn or damaged tires. We recommend 40PSI as proper level of inflation. Replace or repair tubes that show leaks.

### LIMITED WARRANTY:

This cycle is warranteed against faulty parts under the following conditions: this warranty does not cover any failure due to accident, abuse, misuse, neglect or as the result of 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 warranteed for Ninety days from the date of purchase. Repair and replacement of these parts is to be according the Worksman cycles parts and service procedures and must be handled directly through the source where the cycle was purchased. If upon examination of the parts in question, the Worksman Cycle 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, Worksman 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 Worksman Cycles perform the work, the parts will be returned to you at your expense or discarded if no reply is received within two 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. Worksman Trading Corporation is the manufacturer. Misuse of the cycles including off road riding, installation of motors or power assists, alterations, repairs using parts other than genuine Worksman Cycle parts voids warranty. Worksman Trading Corporation is not responsible for maintaining records of serial numbers. Void where prohibited by state law.

PART #	DESCRIPTION	PRICE	WHY SHOULD YOU GET IT?	
P2	Ding-Dong Warning Bell	\$8.50	Alerts others to your presence with a loud, crisp sound.	
P3	Squeeze Bulb Horn	\$9.75	Alerts others to your presence with a loud honking noise.	
P4	Vinyl Covered Cable w/ Padlock	\$9.75	Prevents / deters cycle theft. Secures cycle components.	0
P5	Chrome Rear View Mirror	\$9.75	Allows riders to see behind themselves for better safety.	Mega-Horn
P6	Reflector Kit for Tricycles	\$8.50	Lets others see cycle from all directions. Increases safety.	
P7	Headlight (Battery Operated)	\$14.50	Lights area ahead and allows others to see cycle coming.	
P8	Safety Flag on Pole (Bright Orange)	\$8.00	Increases height of visibility. Allows others to see cycle.	
P18	LED Light Pedals - Glowspeck	\$21.00	Flashing pedals – w/o batteries! Very bright & safe!	
P19	Bicycle Helmet (Adult)	\$39.95	Provides added safety. (May be required by law.)	
P101710	Flashing Strobe Light (Clear)	\$12.95	Increases cycle visibility.	Head Light
P101714	Flashing Strobe Light (Red)	\$12.95	Increases cycle visibility. (May be required by law.)	
P3973	Mega Horn (Super-Loud Battery Operated)	\$21.95	Alerts others with a 105-dB electronic sound.	
1000	Tool-Spoke Tightening Wrench	\$8.21	Adjust spokes as needed.	- 0
1001	Tool-Pedal Wrench	\$16.24	Makes Pedal Installation and removal convenient.	
1006	Air Pump (for tire inflation)	\$19.77	Keep tires properly inflated for best ride characteristics.	
1265TW	Tool-Crank Cone Wrench	\$6.99	Makes crank cone adjustment more convenient.	
2000	Tool-Chain Rivet Remover	\$45.14	Makes chain removal and repairs convenient.	- Flashing Light
3961	Cup Holder (Tube or basket mounted)	\$28.00	Holds cans, bottles, and mugs with handles!	

WORKSMAN CYCLES ACCESSORIES: Worksman offers a complete line or accessories for added safety and customization. If your Worksman Front-Load Business Cycle is to be used outdoors, reflectors are recommended and may be required by law.

## PRICES LISTED ABOVE ARE SUBJECT TO CHANGE. PLEASE CALL FOR PRICING!

Light

### **888-3-WHEELER**

## WORKSMAN FRONT-LOAD TRICYCLES - REPLACEMENT PARTS LIST: (STPT, U, SUD, ICT)

4905 4906 4907

83

4912V 6911V 4908B

	FRONT AXLE AND RELATED PARTS	
4918	Axle for Model 1/20+(31+w/o wings)	7217
4918A	Axle for STPT (37+w/ fender wings)	1265
4918D	Axle for ICT or SUD (34+w/ wings)	
4921	Leaf Springs . STPT, SUD, ICT	1266
4921U	Leaf Springs . %d+	1267D
4926	U-bolt w /nut, washers for 4921, 4921U	
4927A	Bolt . Square head for axle spindle	1268
131	Front wheel parts set to attach wheels	1269
	(2-105,2-102,2-109,2-113,2-146)	1271
4937	Head lug spindle	1272
4937A	Head lug spindle w/ attachment parts	1273
	(1-4937,2-105,2-102,2-113,2-146)	1274
101	Wheel hub (hub only - front)	1275
102	Key washer (for wheels, spindle)	1380D
103	Wheel cups (pressed into hub)	1380F
105	Adjusting cone	1380H
106	Stationary cone (pressed on axle)	
109	Dust washer	
113	Axle locknut (left-hand thread)	4901
146	Wheel bearings (pair)	4902A
		4904

#### **COASTER BRAKE HUB AND PARTS**

300	Coaster brake hub ONLY . Shimano E110
401	Coaster brake hub - 3 speed w/ shifter & cable
SS721	Coaster brake (Shimano E110) internal parts
SS148	Coaster brake sprocket (22T. Shimano)

#### CHAINS AND CHAINGUARD

4910A	Chainguard
4914A	Master Link
4914C	Chain (105 links, ½+x 3/16+)
4915B	Chain adjuster

#### WHEELS AND RELATED PARTS

1008A	Wheel . Front 20+w/o tire & tube
1008	Wheel . Front w/ standard tire & tube
1008S	Wheel . Front w/ solid tire
1008KVPR	Wheel . Front w/ Kevlar tire & PR tube
4136A	Wheel . Rear 26+w/o tire & tube
4136	Wheel . Rear w/ standard tire & tube
4136S	Wheel . Rear w/ solid tire
4136KVPR	Wheel . Rear w/ Kevlar tire & PR tube
4136CSSAL	Wheel . Rear w/ alloy rim, stainless spokes
SMX263CB	Wheel . Rear 3 speed w/ shifter & cable
SMX267CB	Wheel . Rear 7 speed w/ shifter & cable
8132SA	Wheel . Mag Front 20+w/o tire & tube
8132	Wheel . Mag Front w/ standard tire & tube
8132S	Wheel . Mag Front w/ solid tire
8132KVPR	Wheel . Mag Front w/ Kevlar tire & PR tube
1015	Rim ONLY . 20+x2.125+Clincher . Chrome
1016	Rim ONLY . 26+x2.125+Clincher . Chrome
1016AC	Rim ONLY . 26+x2.125+Clincher . Alloy
1014A	Spokes - 26+rear wheel (10 9/16+, 11G)
1014E	Spokes - 20+front wheel (7 3/16, 11G)
1014SS	SS Spokes . 26+rear wheel (10 9/16+, 11G)
1017	Rim Strip . 26+
1017A	Rim Strip . 20+
	PARKING BRAKE & REFLECTORS (Options)

#### Reflector Kit (Front, rear, 3 wheels) 5030D Brake Lever L752L G219A Brake Cable 2002 Caliper Brake w/ brake pads

**CRANK PARTS** Pedals (pair)

	Crank parts set
	(1266,1268,1269,1271,1272,1273,1274) Crank bearings (pair)
	Crank assembly . COMPLETE
	(1265,1275,1380D)
	Ball cups
	Inside stationary washer Key washer (for cranks)
	Adjusting cone . Outside
	Stationary cone . Inside
	Outside locknut
	Crank (6 ½- <del>1)</del>
	36 tooth front sprocket 32 tooth front sprocket
	28 tooth front sprocket
	FENDERS AND BRACES
	Fender (rear)
	Fender (front)
	Braces for front fender (set of 3) Bolt/nut/washer (to mount fender to brace)
	Bolt/nut/washer (to mount brace to wing)
	Bolt/nut/washer (to mount rear fender to brace)
	Brace for rear fender
	SEAT, SEATPOST, AND RELATED PARTS
	Seat (10+wide w/ springs . standard)
	Seat (13+wide w/ springs . optional) Seatpost
V	Seat clamp (under seat)
	Quick-release seat tube clamp (not standard)

7913A-V 4911A Quick-release seat tube clamp (not standard) 4911C Seat tube clamp (at top of seat tube of frame)

#### **TUBES ARE TIRES** 4922 Tire . 20+front Tire . 20+front . Kevlar 4922KV Tire . 20+front - SOLID 4938A Tire . 26+front 4922A Tire . 26+front . Kevlar 4922AKV 4939 Tire . 26+front - SOLID 4923 Tube . 20+front

6023 Tube . 20+front . Puncture Resistant

- Tube . 26+front 4923A
- 6023A Tube . 26+front . Puncture Resistant

#### FRAME, CABINET, PLATFORM, & HANDLEBAR Frame 1 speed

FRAME, CADINET, FLATFORM, & HANDLEDAR
Frame . 1 speed
Frame . 3 speed
Frame 7 speed
Elevator bolt, nut, washers
Spacer leafs springs (4+- STPT)
Spacer leafs springs (9+- STPT)
Spacer leafs springs (17+- STPT)
Spacer leafs springs (19+curved . % +)
Handlebar SUD
Handlebar . 🖫 + and STPT
Handlebar . ICT
Handlebar bolt/nut/washer set
Handlebar nut/washer set for ICT ONLY
Platform . STPT . 38+x 26+x 3+
Platform . Model 1/2+. 34+x 30+x 3+
Cabinet . SUD (46+Lx23+Wx25+H - Call for Ice Cream boxes.)
Basket . Rear twin double basket w/ rack