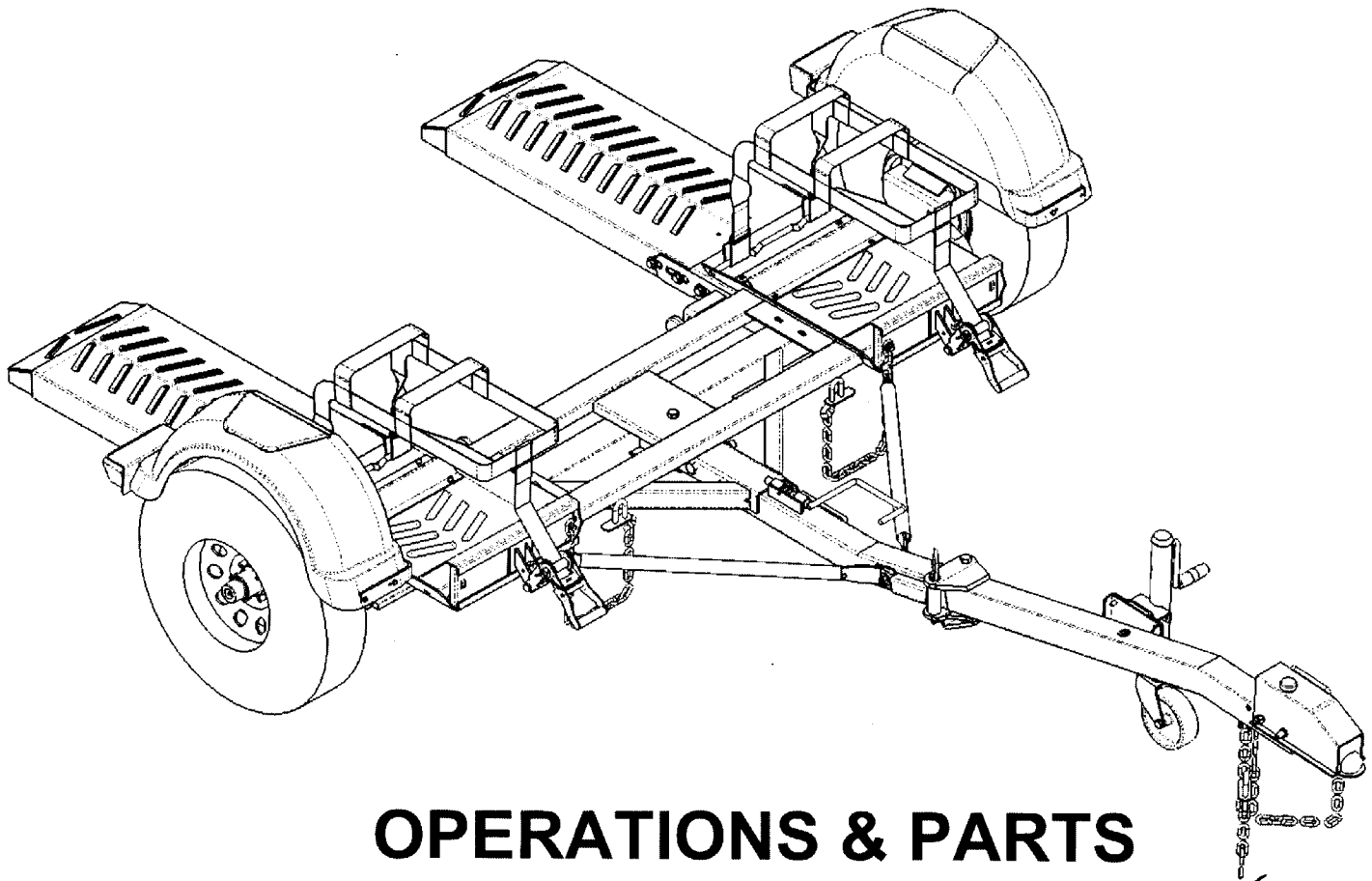


KARTOTE



OPERATIONS & PARTS MANUAL

46-912014

KT 200IF KARTOTE

**ULTRA-FAB PRODUCTS, INC.
ELKHART, INDIANA 46517**

INTRODUCTION

Congratulations! You are now the owner / operator of the finest Tow Dolly available. You have joined the growing number of people who have discovered the convenience of using an Ultra-Fab KarTote.

Take time to be sure you understand the proper operation and maintenance of your KarTote. Read this operator & parts manual carefully; you'll get better results and have fewer problems.

After your KarTote has been in operation for a period of time, check for loose bolts and parts. All are tight when the KarTote leaves the factory; however, after a period of time, some items may require additional tightening.

Like any other machine, your Ultra-Fab KarTote requires proper care and intelligence in operation. Misuse and neglect will only cause unnecessary expense and dissatisfaction.

Ultra-Fab reserves the right to make changes or add improvements to its products at any time without incurring any obligation to make such changes on previously manufactured equipment.

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SAFETY


DO NOT ASSEMBLE OR OPERATE THIS UNIT UNTIL THE FOLLOWING ASSEMBLY, OPERATING AND SAFETY INSTRUCTIONS HAVE BEEN READ AND UNDERSTOOD.

SAFETY



This symbol is used to bring attention to safety precautions and instructions. When you see this symbol, be alert and pay attention to all instructions.

YOUR PERSONAL SAFETY IS INVOLVED.

The words **CAUTION**, **WARNING**, and **DANGER** following a  symbol indicate three degrees of hazard. **CAUTION** is used to remind of good safety practices, or to call attention to unsafe practices. **WARNING** is used to alert of specific potential hazards, while **DANGER** indicates the most serious specific immediate hazards.

SAFETY PRECAUTIONS

- Carefully read and understand this manual before attempting to use your KarTote.**
- Never attempt to load or unload a tow dolly which is not securely hitched to a vehicle.
- Never unhitch a loaded tow dolly.
- Do not load or unload a tow dolly until you are sure everyone is out of the immediate area.
- Do not allow anyone to ride on the tow dolly.
- Do not allow anyone, under any circumstances, to ride in a towed vehicle.
- When operating, locking, or unlocking latch, and/or securing tie-down straps and safety chains, take care to avoid bumping, cutting, scratching, or burning any part of your body on the loaded vehicle.
- Never use a tow dolly as an elevating device to aid in the repair or inspection of a vehicle.
- It is not recommended that a vehicle be towed backwards, due to a tendency for the vehicle to sway or whip, possibly resulting in a loss of vehicle control.
- Allow for increased stopping distances when towing your KarTote. Some vehicles may have insufficient braking capacity to stop the dolly and towed vehicle within normal stopping distances.
- Always keep your KarTote in good operating condition. Before use, repair or replace any malfunctioning, missing, or broken items with factory replacement parts.
- Do not back a loaded or unloaded tow dolly.

SAFETY CHECKLIST

Before loading, and periodically during a trip, the following safety checks should be made:

- LIGHTING** - Check to be sure all lights are operating properly.
- SAFETY CHAINS** - Inspect chains for wear, and make certain they are securely attached.
- TIE-DOWN STRAPS** - Never use worn, altered, or frayed tie-down straps to secure a vehicle to a tow dolly. Replace any defective straps with correctly sized factory replacement straps. Page 18
- TRAILER FRAME** - Make a thorough visual inspection of the KarTote, check for loose or missing bolts, and damaged parts. Replace damaged parts with factory replacement parts.
- TIRES** - Visually inspect tires for wear and check inflation pressure. Refer to page 24 for the correct inflation pressures for your KarTote.
- COUPLER & BALL** - When attaching the coupler to the ball, make sure the ball is completely engaged in the coupler ball socket and securely locked in place.
- WHEEL NUTS** - See page 8 for proper tightening and checking procedure.
- WHEEL BEARINGS** - Before a trip - With axle supported so tire will not contact the ground, wheel should have a slight drag when spun and no end play in bearings when moved side to side. Adjust spindle nut accordingly. During a trip - Check for excessive end play in the bearings by rocking the wheel in and out. It should not move more than 1/4". Check the temperature, by hand, of each hub in relation to the other. If one hub is significantly warmer than the other, perform the "Before a trip" check above. See page 24 if maintenance is needed.

ASSEMBLY INSTRUCTION

For shipping and handling convenience, your KarTote may have been shipped in various stages of assembly. The amount of assembly required to complete your KarTote will depend on the method of shipment, as well as any optional equipment.

The following pages contain detailed assembly instructions for the various components of your KarTote. General assembly instructions are given for procedures common to all KarTote models, with additional instructions included in the appropriate sections to aid in the assembly of particular options. Start at the beginning of the assembly instructions to avoid missing any assembly procedures. If the procedure has already been performed, or the option is not included on your KarTote, disregard it and go on to the next step. Refer to the parts diagrams in the back of this manual for part identification.

TOOLS REQUIRED

The following is a suggested list of tools required for assembly.

WRENCHES

Two - 7/16	One - 1/2
Two - 9/16	One - 11/16
One - 5/8	Two - 3/4
Two - 1 1/8	

OTHER TOOLS

Hammer	Pliers
Screw Driver - Flat	Punch
Vise Grip	5/16 Allen Wrench

CAUTION: Take care to insure the KarTote will not accidentally topple, slide, or fall on you when assembling or working on it. Always use solid wood blocks or stands to keep it elevated. Never rely on a hoist or concrete blocks to hold the weight of the KarTote.

TORSION AXLE

Block the main frame of the KarTote approximately two feet of the ground. Insert the torsion axle tubes in to the main frame tube as shown in figure 1. The correct positioning of the axle arm is toward the rear and slightly upward. Make sure the torsion axles are installed on the correct side so proper axle arm rotation is obtained.

Fasten the torsion axles to the main frame by inserting the 5/8" x 4 1/2" hex bolts through the corresponding holes and secure with the 5/8" nylon insert lock nuts as shown in figure 1.

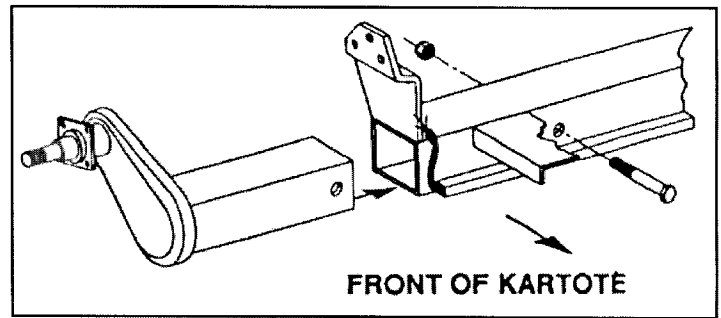


Figure 1

TONGUE ASSEMBLY

Insert the tongue wiring assembly (harness with plug on both ends) through the front half of the tongue. The plug in end of the wire assembly with the white ground wire should be to the coupler end of the tongue.

Ground the white wire to the small hole in the front of the tongue with the 1/4" x 3/4" hex bolt and whiz nut.

SURGE BRAKES

Install brake hydraulic coupler and the tongue handle. See Tongue Parts diagram then install Orifice in the hydraulic coupler see Brake Line Parts diagram. Connect brake lines and hose per brake line diagram for the tongue. Insert the brake line from the end of the front half come out the 7/8" hole on top of the tongue. Install the grommet over the brake line. Bend the tubing so the line will lay on top of the tongue. Connect to the Orifice at the back of the coupler, and insert the grommet into the hole.

Assemble the rear half to the front half. Start wire harness and brake line through the line bracket at the front end of the rear tongue half. Install item #4 5/8" bolt and nut. To prevent damage to the wiring and brake line from the compression spring, Pivot tongue all the way to the stop and with the tongue in this position, slide the wires and line to the side and up so that a 3/16" x 1/2" pin will hold secure. See figure 2.

Insert the tongue spring plug into the compression spring then insert the spring into the tube on the lower end of the tongue.

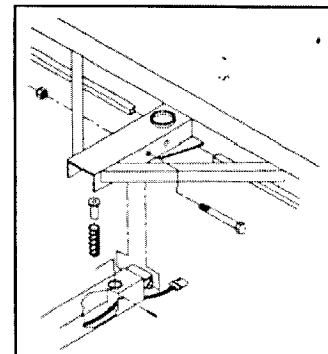


Figure 2

Bolt the tongue to the main frame assembly using one 3/4" x 5 1/2" hex bolt and nylon insert lock nut as shown on page 15.

Connect the wire plugs and brake line to the tee fitting underneath the tongue.

Assemble the tongue braces (item 8 page 15) to the tongue and main frame. Loosely attach braces to the tongue with the 1/2" x 5" hex bolt, flat washers and nylock nuts. Use the 1/2" x 1 1/2" hex bolts, flat washers, and nylock nuts to fasten the braces to the main frame. Tighten bolts snugly, but not completely.

HYDRAULIC BRAKES

Refer to page 4 and 5 for identification of parts.

Place the brake backing plate against the four hole axle flange. Align the backing plate holes so the brake cylinder is up and slightly toward the rear of the unit.

Insert the four 7/16" x 1" fine thread hex bolts outward through the axle flange and the back plate. On the lower rear hole, attach the brake hose bracket (item 11) so that it can be used to stabilize the brake lines. Secure with four lock washers and fine thread hex nuts.

Connect the 8 7/8" brake line (item 13) to the hole on the inside of the backing plate. Gently bend the line so that it lies flat against the backing plate, then bend it downward and around the torsion arm toward the front of the Kar Tote. The end of the line should be near the bracket on the lower rear hole on the axle flange, where it will connect to the 12 1/8" rubber hose. (item 12)

IMPORTANT: Be sure the brake line will miss the fender mount bracket as the torsion arm rotates.

Insert the 12 1/8" hose (item 12) rearward through the bracket. Connect it to the brake line and use the hose clip (item 16) to secure the hose to the bracket.

Insert the brake lines (item 5) through the protective channels on the front of the axle. Connect them with the tee (item 14), and to the rubber hoses (item 12).

Bend the outer ends of the brake lines up and rearward as shown on page 4. They should be aligned with the holes in the brackets located on the inside of the fender mount brackets.

Assemble the bearing cones, and the grease seals to the hydraulic brake drums adding grease if necessary.

Slide the brake drum assemblies, spindle washers and spindle nuts onto the spindle. **Use the following guidelines to set the end play on the bearings initially, and any time the hubs are removed.**

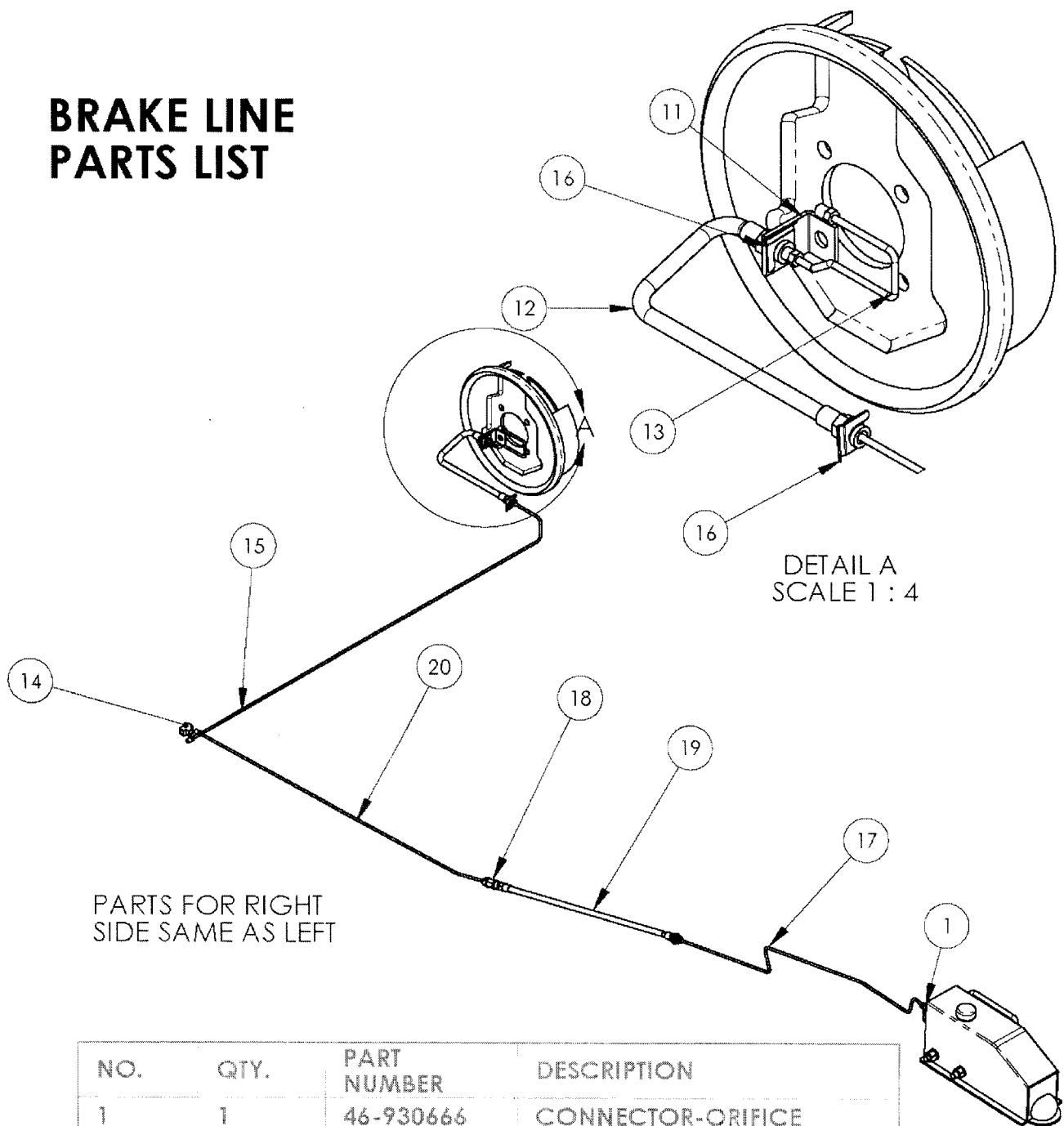
Turn the hub slowly to seat the bearings while tightening the spindle nut until the hub will no longer turn.

Without moving hub, the spindle nut should then be backed off to the nearest locking hole, approximately 1/6 to 1/4 of a turn, and the cotter pin installed.

The spindle nut and hub should be free to move with the cotter pin being to only restraint.

Place the dust cap on the brake hub. Note: this dust cap and spindle are designed to be greased with out having to disassemble the brake hub. Apply grease at the fitting in the center of the cap until the grease comes out the inside end of the spindle.

BRAKE LINE PARTS LIST



NO.	QTY.	PART NUMBER	DESCRIPTION
1	1	46-930666	CONNECTOR-ORIFICE
11	1	46-014170	BRACKET-BRAKE HOSE
12	1	46-530160	HOSE-BRAKE 1/8 ID 12 1/8
13	1	46-240476	LINE-BRAKE 3/16 X 8 7/8
14	1	46-300030	TEE-BRAKE 3/16 LINE
15	1	46-240484	TUBING BRAKE 3/16 X48
16	2	46-290229	CLIP-HOSE HYDRAULIC BRAKE
17	1	46-290024	LINE-BRAKE 32"
18	1	46-290022	UNION-BRAKE HOSE
19	1	46-530161	HOSE-BRAKE 24"
20	1	46-290023	LINE 30 INCH BRAKE

