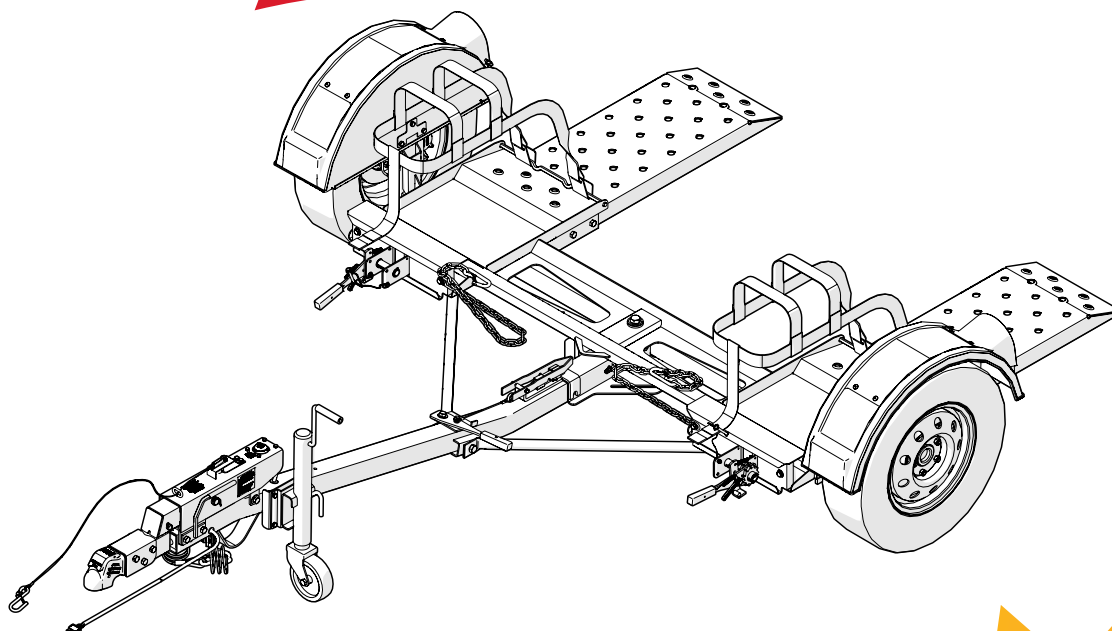


OWNER'S MANUAL

ATTENTION INSTALLER

This manual **MUST** accompany the owner of this Kar Kaddy X

DEMCO®



**IMPORTANT
WARRANTY REGISTRATION HERE:**



Register your
product within
30 days to receive
1 Year Warranty

SERIAL NUMBER

General Information

Thank you for purchasing a Demco tow dolly. We feel you have made a wise choice and hope you are completely satisfied with your new piece of equipment.

⚠ WARNING: FAILURE TO FOLLOW THESE INSTRUCTIONS CAN RESULT IN LOSS OF TOWING VEHICLE CONTROL, SEPARATION OF THE TOW DOLLY FROM THE TOWING VEHICLE, SEPARATION OF THE TOWED VEHICLE FROM THE TOW DOLLY, CAUSING SEVERE PERSONAL INJURY, DEATH, OR PROPERTY DAMAGE.

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General Information

- 1. Unless otherwise specified, high-strength (grade 5) (3 radial-line head markings) hex head bolts are used throughout assembly of this piece of equipment.
- 2. Whenever the terms "LEFT" and "RIGHT" are used in this manual it means from a position behind the Kar-Kaddy and facing forward.
- 3. When placing a parts order, refer to this manual for proper part numbers and place order by **PART NO.** and **DESCRIPTION.**

Reporting Safety Defects

If you believe that your vehicle has a defect which could cause a crash or could cause injury or death, you should immediately inform the National Highway Traffic Safety Administration (NHTSA) in addition to notifying Demco Manufacturing Company (DEMCO).

If NHTSA receives similar complaints, it may open an investigation, and if it finds that a safety defect exists in a group of vehicles, it may order a recall and remedy campaign. However, NHTSA cannot become involved in individual problems between you, your dealer, or (DEMCO).

To contact NHTSA, you may either call the Auto Safety Hot line toll-free at 1-800-424-9393 (or 366-0129 in Washington, D.C. area) or write to:
NHTSA,
U.S. Department of Transportation
Washington, D.C. 20590.

You can also obtain other information about motor vehicle safety from the Hot line.

SAFETY

TAKE NOTE! THIS SAFETY ALERT SYMBOL FOUND THROUGHOUT THIS MANUAL IS USED TO CALL YOUR ATTENTION TO INSTRUCTIONS INVOLVING YOUR PERSONAL SAFETY AND THE SAFETY OF OTHERS. FAILURE TO FOLLOW THESE INSTRUCTIONS CAN RESULT IN INJURY OR DEATH.



THIS SYMBOL MEANS

-ATTENTION

-BECOME ALERT

-YOUR SAFETY IS INVOLVED!

SIGNAL WORDS

Note the use of the following signal words DANGER, WARNING, and CAUTION with the safety messages. The appropriate signal word for each has been selected using the following guidelines:

DANGER:

Indicates an imminently hazardous situation that, if not avoided, will result in death or serious injury. This signal word is to be limited to the most extreme situations typically for machine components which, for functional purposes, cannot be guarded.

WARNING:

Indicates a potentially hazardous situation that, if not avoided, could result in death or serious injury, and includes hazards that are exposed when guards are removed. It may also be used to alert against unsafe practices.

CAUTION:

Indicates a potentially hazardous situation that, if not avoided, may result in minor or moderate injury. It may also be used to alert against unsafe practices.

If you have questions not answered in this manual, require additional copies, or if your manual is damaged, please contact your dealer or Demco, 4010 320th Street, Boyden, IA 51234

ph: (712) 725-2311 Toll Free: 1-800-543-3626 Fax: (712) 725-2380 <http://www.demco-products.com>



SAFETY...YOU CAN LIVE WITH IT

Equipment Safety Guidelines

Every year many accidents occur which could have been avoided by a few seconds of thought and a more careful approach to handling equipment. You the operator, can avoid many accidents by observing and following precautions in this section. To avoid personal injury, study the following precautions and insist those working with you, or you yourself, follow them.

In order to provide a better view, certain illustrations in this manual may show an assembly with a safety shield removed. However, equipment should never be operated in this condition. Keep all shields in place. If shield removal becomes necessary for repairs, replace shield prior to use.

Replace any caution, warning, danger or instruction safety decal that is not readable or is missing. Location of such decals is indicated in this booklet.

Do not attempt to operate this equipment under the influence of alcohol or drugs.

Review safety instructions with all users.

Operator should be a responsible adult. **DO NOT ALLOW PERSONS TO OPERATE OR ASSEMBLE THIS UNIT UNTIL THEY HAVE DEVELOPED A THOROUGH UNDERSTANDING OF SAFETY PRECAUTIONS AND HOW IT WORKS.**

Do not paint over, remove, or deface any safety signs or warning decals on your equipment. Observe all safety signs and practice instructions on them.

Never exceed limits of a piece of machinery. If its ability to do a job, or to do so safely is in question-DON'T TRY IT.

For Your Safety

Lighting and Marking

It is the responsibility of the customer to know the lighting and marking requirements of the local highway authorities and to install and maintain the equipment to provide compliance with the regulations. Add extra lights when transporting at night or during periods of limited visibility.

Remember

Your best assurance against accidents is a careful and responsible operator. If there is any portion of this manual or function you do not understand, contact your local authorized dealer or the manufacturer.

Safety Sign Care

- Keep safety signs clean and legible at all times.
- Replace safety signs that are missing or have become illegible.
- Replace parts that displayed a safety sign should also display the current sign.
- Safety signs are available from your distributor, dealer parts department, or the factory.

How to install safety signs:

- Be sure that the installation area is clean and dry.
- Decide on the exact position before you remove the backing paper.
- Remove the smallest portion of the split backing paper.
- Align the decal over the specified area and carefully press the small portion with the exposed sticky backing in place.
- Slowly peel back the remaining paper and carefully smooth the remaining portion of the decal into place.
- Small air pockets can be pierced with a pin and smoothed out using the piece of decal backing paper.

Tire Safety

- Failure to follow proper procedures when mounting a tire on a rim can produce an explosion which may result in a serious injury or death.
- Do not attempt to mount a tire unless you have the proper equipment and experience to do the job.
- Inflating or servicing tires can be dangerous. Whenever possible, trained personnel should be called to service and/or mount tires.
- Always order and install tires and wheels with appropriate capacity to meet or exceed the anticipated weight to be placed on the equipment.

Before Operation

- Carefully study and understand this manual.
- Do not wear loose-fitting clothing which may catch in moving parts.
- Always wear protective clothing and substantial shoes.
- Keep wheel and lug nuts tightened to specified torque.
- Assure tires are inflated evenly.
- Give the unit a visual inspection for any loose bolts, worn parts, or cracked welds, and make necessary repairs. Follow the maintenance safety instructions included in this manual.
- Be sure there are no tools lying on or in the equipment
- Do not use the unit until you are sure that the area is clear, especially around children and animals.
- Don't hurry the learning process or take the unit for granted. Ease into it and become familiar with your new equipment.
- Practice operation of your equipment and its attachments. Completely familiarize yourself and other operators with it's operation before using.
- Make sure that the brakes are evenly adjusted (if equipped with brakes)
- Securely attach to towing unit. Use a high strength, appropriately sized hitch pin with a mechanical retainer and attach a safety chain.
- Do not allow anyone to stand between the tongue or hitch and the towing vehicle when backing up to the equipment.
- Make Sure the tow rating on vehicle is high enough for what it is towing.

During Operation

- **SAFETY CHAIN** -A safety chain must be obtained and installed. Always follow state and local regulations regarding safety chain and auxiliary lighting when towing equipment on a public high way. Be sure to check with local law enforcement agencies for your own particular regulations. Only a safety chain (not an elastic or nylon/plastic tow strap) should be used to retain the connection between the towing and towed machines in the event of separation of the primary attaching system.
- Install the safety chains by criss crossing chains under tongue and secure to draw bar cage, mounting loops, or bumper frame.
- Beware of bystanders, PARTICULARLY CHILDREN! Always look around to make sure that it is safe to start the engine of the towing vehicle or move the unit. This is particularly important with higher noise levels, as you may not hear people shouting.
- **NO PASSENGERS ALLOWED**- Do not carry passengers anywhere on or in equipment.
- Do not clean, lubricate, or adjust your equipment while it is moving.
- When halting operation, even periodically, set the or towing vehicle brakes, shut off the engine, and remove the ignition key.
- Be extra careful when working on inclines.
- Maneuver towing vehicle at safe speeds.
- Avoid loose fill, rocks, and holes; they can be dangerous for equipment operation or movement.
- Allow for unit length when making turns.
- Keep all bystanders and pets clear of the work area.
- Operate the towing vehicle from the operators seat only.
- Never stand alongside of unit with engine running or attempt to start engine and/or operate machine while standing alongside of unit.
- Never leave running equipment attachments unattended.
- As a precaution, always recheck the hardware on equipment following every 100 hours of operation. Correct all problems. Follow the maintenance safety procedures.

Following Operation

- Following operation, or when unhitching, stop the towing vehicle, set the brakes, shut off the engine and remove the ignition keys.
- Store the unit in an area away from human activity.
- Do not permit children to play on or around the stored unit.
- Make sure all parked machines are on a hard, level surface and engage all safety devices.
- Wheel chocks may be needed to prevent unit from rolling.

Highway and Transport Operations

- Adopt safe driving practices:
 - Always drive at a safe speed relative to local conditions and ensure that your speed is low enough for an emergency stop.
 - Reduce speed prior to turns to avoid the risk of overturning.
 - Always keep the towing vehicle in gear to provide engine braking when going downhill. Do not coast.
 - Do not drink and drive!
- Comply with state and local laws governing highway safety on public roads.
- Use approved accessory lighting flags and necessary warning devices to protect operators of other vehicles on the highway during transport. Various safety lights and devices are available from your dealer.
- Local laws should be checked for all highway lighting and marking requirements.
- Plan your route to avoid heavy traffic.
- Be a safe and courteous driver. Always yield to oncoming traffic in all situations, including narrow bridges, intersections, etc.
- Be observant of bridge loading ratings. Do not cross bridges rated lower than the gross weight at which you are operating.
- Watch for obstructions overhead and to the side while transporting.
- Always operate equipment in a position to provide maximum visibility at all times. Make allowances for increased length and weight of the equipment when making turns, stopping the unit, etc.

Performing Maintenance

- Good maintenance is your responsibility. Poor maintenance is an invitation to trouble.
- Make sure there is plenty of ventilation. Never operate the engine of the towing vehicle in a closed building. The exhaust fumes may cause asphyxiation.
- Before working on this machine, stop the towing vehicle, set the brakes, shut off the engine and remove the ignition keys.
- Be certain all moving parts and attachments have come to a complete stop before attempting to perform maintenance.
- Always use a safety support and block wheels. Never use a jack to support unit.
- Always use the proper tools or equipment for the job at hand.
- Use extreme caution when making adjustments.
- Follow the torque chart in this manual when tightening bolts and nuts.
- Openings in the skin and minor cuts are susceptible to infection from brake fluid. Without immediate medical treatment, serious infection and reactions can occur.
- Replace all shields and guards after servicing and before moving.
- After servicing, be sure all tools, parts and service equipment are removed.
- Do not allow grease or oil to build up on the actuator, any step, or platform.
- When replacing bolts, refer to the owner's manual.
- Refer to bolt torque chart for head identification marking.
- Where replacement parts are necessary for periodic maintenance and servicing, genuine factory replacement parts must be used to restore your equipment to original specifications. The Manufacturer will not claim responsibility for use of unapproved parts and/or accessories and other damages as a result of their use.
- If equipment has been altered in any way from original design, the manufacturer does not accept any liability for injury or warranty.
- A fire extinguisher and first aid kit should be kept readily accessible while performing maintenance on this equipment.
- Periodically check all bolts and nuts to insure proper tension or torque.
- An occasional drop of oil may be required on the moving parts of the tie-down winch.

Safety Checks

- Safety is of utmost importance at all times. There are several items that must be checked each time before using and while using the tow dolly.
- Make sure all bolts are properly tightened and those requiring a set torque are up to specifications:
- Lug Nuts - 120 ft. lbs.
- Check lug nut tension after the first 5 miles and periodically thereafter.
- The tires must be inflated to the recommended PSI (located on side of tire).
- The ball hitch must latch securely around the ball and the safety ball clamp must be in position to lock the hitch on the ball.
- RECOMMENDED BALL HEIGHT: 18" to the top of the ball.
- Tow dolly must be connected directly into tow vehicle receiver hitch or into an approved rise drop receiver only! Tow dolly should never be inserted into a receiver extension, bike rack, storage rack, motorcycle rack, or any other device that extends the tow dolly away from the tow vehicle.
- The transport safety chains must be hooked to the frame of the towing vehicle and the towed vehicle safety chain must be hooked to the towed vehicle frame directly above the area where the chain is mounted on the tow dolly. Leave some slack in the chain to allow suspension movement.
- Caution the user not to attempt to back-up the tow dolly as damage may be done to the tow dolly and/or the vehicle being towed.
- Check to make sure that all lights are in proper working order.
- Examine the ramps, winches and straps, making sure they are in good condition.
- Be certain the safety lock pin is locking the strap winch.
- Re-tighten straps after the first 5 miles and every 50 miles thereafter to ensure that they are tight.
- The strap on the optional winch must be in good condition and should be wound neatly on winch when not in use.
- NOTE: The winch strap must not be left connected to the towed vehicle after it is loaded and strapped down.
- The owner assumes all responsibility for the towing vehicle's fitness and suitability to perform the towing task in a safe, legal, and reliable manner. These responsibilities include, but are not limited to:
- Compliance with towing restrictions as stated by the towing vehicle's owners manual and/or manufacturer.
- Towing vehicle must have as a minimum a Class 3-5,000 lb.(for non-brake units) or a Class 4-6,000 lb.(for brake units) hitch and hitch ball. Do not use any other size hitch ball.
- Towing vehicle must be in good condition.
- Towing vehicle must have a current federal and/or state inspection where applicable, and comply with any applicable laws.
- The towing vehicle's weight must be substantially greater (at least 1000 lbs.) than the weight of the tow dolly and towed vehicle combined.
- Make sure all lights are properly hooked up and operating at all times.
- Towing vehicle's hitch must be approximately 18 inches off the ground (measured to the top of the ball). Make sure that the hitch and hitch ball are in good condition and not rusted, loose or stripped. Both the hitch and the hitch ball must be securely attached to the towing vehicle.
- Reading and following these instructions.
- Do not load the towed vehicle with cargo.
- Towed vehicles exceeding weight limits will overload the tow dolly and may cause serious injury and damage to both the towed vehicle and dolly.
- Do not load a towed vehicle exceeding the width limit - it will obstruct the platform's swivel action when underway and could damage the towed vehicle and/ or the tow dolly.
- Do not exceed 55 miles per hour or any lower posted speed limit.

Pre-Checks Before Loading

Safety Checks

- Examine ramps, winches and straps to make sure they are in good condition. Check wheel nuts every trip.
- To check the towing system after hook-up, tow about 100 feet. Then stop and perform a safety check. Check the bolts, chains, tire straps, ramps, coupler latch and other items, to ensure that they are tight. In addition, check all taillights and stoplights to make sure that they are operating properly. Repeat the safety check after the first 5 miles and every 50 miles thereafter.
- Tire inflation must be maintained per recommendation of tire manufacturer (located on side wall of tire).
- Tire pressure may increase during travel - do not bleed off this increase in pressure.
- Recheck coupler to be sure it is properly secured to the ball. Check tightness of
- coupler latch.
- **Check your vehicle owners manual or registration for vehicle weight. Towing vehicle must be larger and at least 1000 lbs. heavier than the towed vehicle and tow dolly combined.**

Lighting Checks

Check lighting for proper operation before heading down the road.

1. Check that the WHITE ground wire of the wiring harness is connected to the tow dolly frame and the WHITE (ground) wire is connected to the frame of the towing vehicle.
2. With headlights in "ON" position, the taillight should be lighted.
3. Start engine and have someone depress brake pedal. Brake lights of the tow dolly and towing vehicle should come "on" and "off" simultaneously with each application.
4. Put left turn signal on. Left turn light of tow dolly and towing vehicle should flash simultaneously. Should the turn signal light of the tow dolly function opposite to those of the towing vehicle, it is probable that the YELLOW and GREEN wires have been reversed. Check the plug connection under the tongue of the tow dolly to make sure wire colors are not crossed at that point. If plug connection is correct, correct problem by reversing yellow and green wire connection on the towing vehicle.

Towed Vehicle Weight & Size Limitations

Tread Width	42" Min.	78" Max.
Body Width	78" Max.	

	<u>FWD</u>
Weight	4800 lbs.

FWD = Front Wheel Drive Towed Vehicle

DO NOT BACK UP!!

The tow dolly is not a trailer and cannot be backed up because it swivels both at the coupler and car platform. If you must back up, unload car first, disconnect the coupler and move car and dolly separately.

Play it Safe: Park where you can pull out going forward.

Loading Angle Clearance Guide

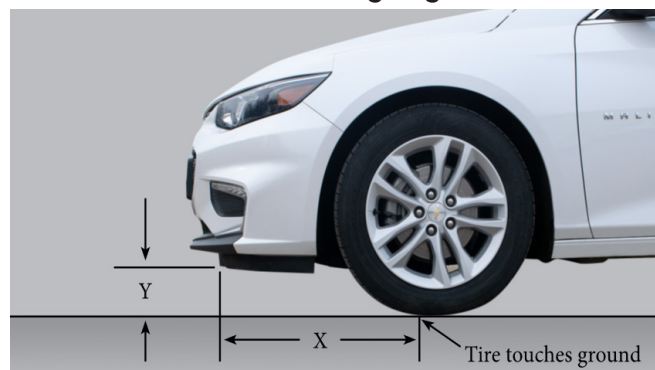
IMPORTANT:

Using this guideline will reduce the chance of the towed vehicle's air dam, or bottom of fascia from interfering with tow dolly platform and/or tire stop. "X" must be less than 4.6 x "Y".

Example: If Y measures 6"

$$4.6 \times 6 = 27.6$$

X must measure less than 27.6"



NOTE: User's responsibility for checking clearance. If "Y" is less than 3.5", interference may occur.

Torque Specifications

Tighten all bolts to torques specified in chart unless otherwise noted. Check tightness of bolts periodically, using bolt chart as guide. Replace hardware with same grade bolt.

NOTE: Unless otherwise specified, high-strength Grade 5 hex bolts are used throughout assembly of equipment.

Bolt Torque for Standard bolts *

"A"	GRADE 2		GRADE 5		GRADE 8	
	lb-ft	(N.m)	lb-ft	(N.m)	lb-ft	(N.m)
1/4"	6	(8)	9	(12)	12	(16)
5/16"	10	(13)	18	(25)	25	(35)
3/8"	20	(27)	30	(40)	45	(60)
7/16"	30	(40)	50	(70)	80	(110)
1/2"	45	(60)	75	(100)	115	(155)
9/16"	70	(95)	115	(155)	165	(220)
5/8"	95	(130)	150	(200)	225	(300)
3/4"	165	(225)	290	(390)	400	(540)
7/8"	170	(230)	420	(570)	650	(880)
1"	225	(300)	630	(850)	970	(1310)

Torque figures indicated are valid for non-greased or non-oiled threads and heads unless otherwise specified. Therefore, do not grease or oil bolts or capscrews unless otherwise specified in this manual. When using locking elements, increase torque values by 5%.

* GRADE or CLASS value for bolts and capscrews are identified by their head markings.

Torque Lug Nuts to 120 FT/LBS

Torque 11MM caliper bolts to 40 ft/lbs

Bolt Torque for Metric bolts *

"A"	CLASS 8.8		CLASS 9.8		CLASS 10.9	
	lb-ft	(N.m)	lb-ft	(N.m)	lb-ft	(N.m)
6	9	(13)	10	(14)	13	(17)
7	15	(21)	18	(24)	21	(29)
8	23	(31)	25	(34)	31	(42)
10	45	(61)	50	(68)	61	(83)
12	78	(106)	88	(118)	106	(144)
14	125	(169)	140	(189)	170	(230)
16	194	(263)	216	(293)	263	(357)
18	268	(363)	--	--	364	(493)
20	378	(513)	--	--	515	(689)
22	516	(699)	--	--	702	(952)
24	654	(886)	--	--	890	(1206)

Decal Location

WINCH OPERATING INSTRUCTIONS

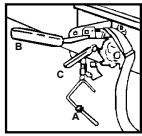
Remove winch lock pins (A) from strap winches on front of tow dolly.

Release winch: Grasp handle (B) squeeze trigger (C) push down and pull all excess strap from winch. Lay tire strap to outside of tow dolly.

Tighten straps: Place tire straps over tires centering straps and winches to tires. While tightening straps, pull cross straps forward to ensure even tightening. Tighten straps until each tire starts to flatten against tire stop. After strap is tight, insert lock pin and make sure handle is in horizontal position.

REV 2

DD21016



A. DD21016 QTY. 2

Keep wheel lug nuts or bolts tightened to specified torque.
Maintain tire pressure at 50 P.S.I. cold

REV 1

DA21001

B. DA21001 QTY. 2

Keep wheel nut torque to 120 ft. lbs.
Maintain tire pressure at 50 P.S.I. Cold

RD21008

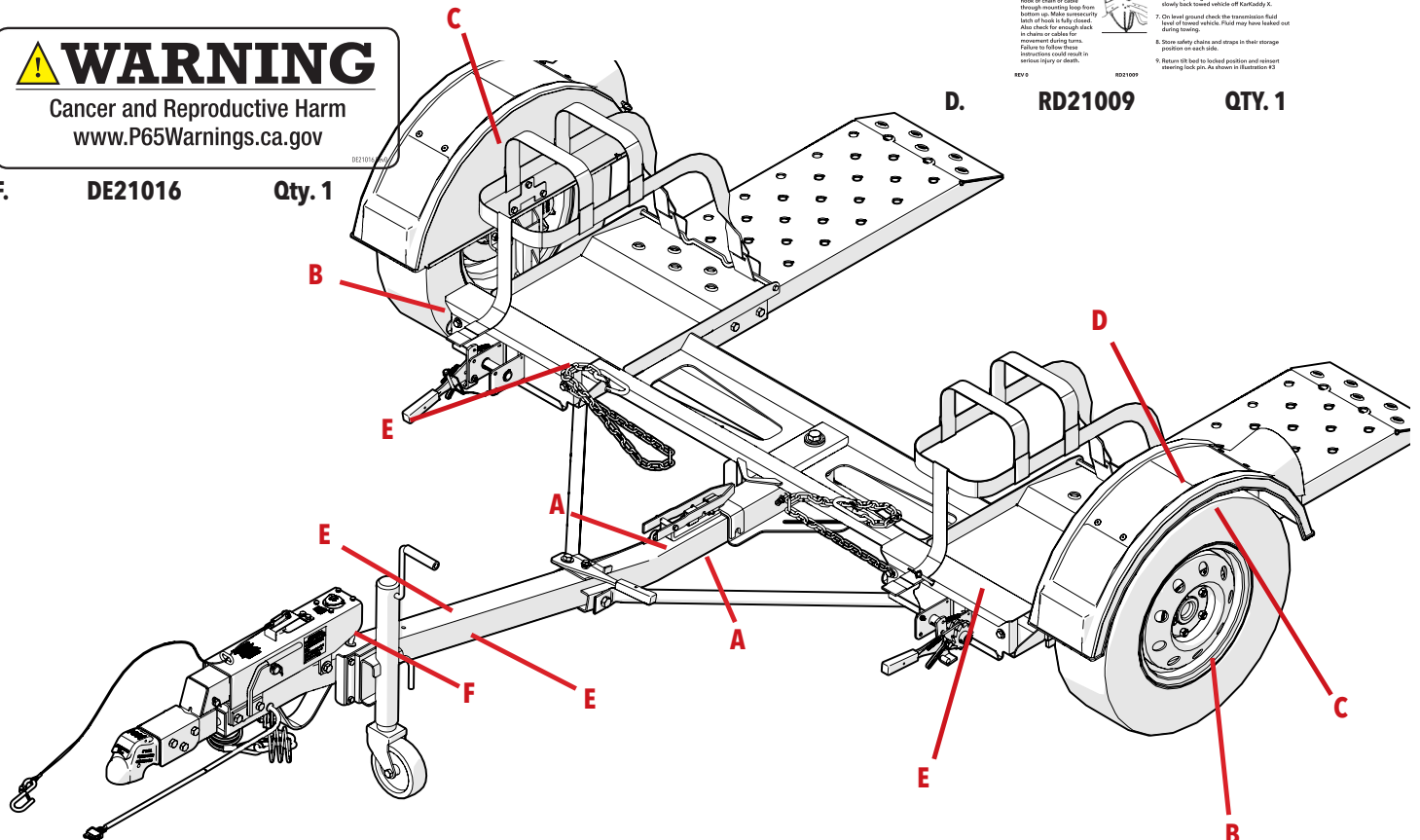
C. RD21008 QTY. 2



E. DD210XX QTY. 4

WARNING
Cancer and Reproductive Harm
www.P65Warnings.ca.gov

F. DE21016 Qty. 1



WARNING

Read following information before loading, unloading, using, unhooking or unhooking the Karkaddy X to prevent property damage, serious injury or death.

IMPORTANT DO'S & DON'TS

- Do not tow vehicles with front-wheel drive.
- Do not tow more than 1,000 lbs. (gross weight) for tow dolly.
- Always tow vehicle parking brake is fully engaged.
- Always tow vehicle with vehicle chocks fully engaged or unhooking dolly.
- When towed vehicle is not vehicle itself only to completely and properly hooked up to towing vehicle and setting on level surface.
- Always disconnect from towed vehicle only on level surface.
- Tilt lights and stop lights must be hooked up and working properly at all times.
- Do not tow vehicle that exceeds weight or tow limit.
- Always have someone safely guide you when coupling towed vehicle onto dolly.
- Always tow of towed vehicle and dolly are in good condition and properly inflated. Tire pressure may increase during travel. Do not exceed of this increase in pressure.
- Do not tow vehicle with dolly attached. Only hook up at coupler and at tie plates. If you must hook up without towed vehicle first, disconnect dolly and tow vehicle and dolly separately. Do not tow vehicle until you are fully hooked up.
- Always tow vehicle with dolly attached. Only hook up at coupler and at tie plates. If you must hook up without towed vehicle first, disconnect dolly and tow vehicle and dolly separately. Do not tow vehicle until you are fully hooked up.
- Always tow vehicle with dolly attached. Only hook up at coupler and at tie plates. If you must hook up without towed vehicle first, disconnect dolly and tow vehicle and dolly separately. Do not tow vehicle until you are fully hooked up.

IMPORTANT INFORMATION

Customer Responsibilities

Customer assumes all risks involved in operation, use, or possession of Karkaddy X. Towing a vehicle is customer responsibility and it is the customer who must ensure that weight and dolly limits of dolly will not be exceeded by vehicle being towed. Any injury or damage that results from improper use or exceeding weight or dolly limits is sole responsibility of owner.

Towing Vehicle Requirements

Owner assumes all responsibility for towing vehicle's fitness and suitability to perform towing tasks in safe, legal and suitable manner. These responsibilities may include, but are not limited to:

- Towing vehicle weight being towed substantially greater (at least 1000 lbs.) than weight of Karkaddy X and towed vehicle combined.
- Compliance with towing restrictions as stated by towing vehicle owner's manual or manufacturer.
- Towing vehicle having minimum of 4000 lb. hitch and hitch ball must be 2". Do not use any other size hitch ball.
- Towing vehicle hitch being approximately 18 inches to 20 inches from rear bumper. Make sure that hitch and hitch ball are in good condition and not rusted, loose or stripped. Both hitch and hitch ball must be securely attached to towing vehicle.
- Towing vehicle must be in good condition.
- Towing vehicle having a current federal or state inspection and registration, and complying with any applicable laws.
- House of lights are properly hooked up and operating at all times.

Load Weight and Size Limits

Load weight is total weight of towed vehicle. Overloading dolly may cause serious injury or damage to both towed vehicle and dolly.

Maximum Towed Vehicle Weight

Karkaddy X 4800 lbs.

Size limit is overall width. Towed vehicle exceeding size limit will obstruct platform's towing action when towing and could damage towed vehicle tire and tire structure.

Karkaddy X: 78" max.

INSTRUCTIONS

Karkaddy X Hook-Up

1. Assume towing vehicle parking brake is fully engaged.
2. Loosen coupler lock, place coupler of dolly over 2" hitch ball on towing vehicle. Assume coupler is fully seated on ball then completely engage coupler lock. Put up or dolly tongue to ensure it is properly engaged.
3. Connect dolly wire harness to connector on towing vehicle and check lights for proper operation.
4. Once cross safety chains or cables under tongue, thread hook of chain or cable through mounting loop from bottom up. Make sure safety chain or hook is fully closed. Also check for enough slack chain or cable for movement during turns.

REV 0 RD21009

Loading Towed Vehicle

1. Assume towing vehicle and Karkaddy X are on a level ground and properly hooked up before loading towed vehicle.



2. Remove winch lock pins (A) from strap winches on front of Karkaddy X.

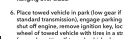
3. Release winch. Grasp handle (B) squeeze trigger (C) push down and pull all excess strap from winch. Lay the strap to outside of dolly.



4. Before loading (and unloading) towed vehicle make sure platform and towed vehicle are in proper alignment. Load towed vehicle onto Karkaddy X until completely and properly hooked up to towing vehicle and setting on level surface.

5. With someone safely guiding you, center vehicle on Karkaddy X. Thump drive shaft to engage transmission. Do NOT BACK VEHICLE INTO dolly. Assume that towed vehicle is properly hooked up to towing vehicle and setting on level surface.

6. Place towed vehicle in park (or gear if it has standard transmission) by pulling parking brake and off engine, remove ignition key, lock steering wheel of towed vehicle with tire in a straight forward position. If towed vehicle does not have a locking steering column, steering wheel must be locked.



7. Place the driver's door open, strap straps and anchors to tires, avoiding contact with suspension components. Direct side of hook must face rear of Karkaddy X. While tightening straps, pull cross straps forward to ensure even tightening. Tighten strap after strap in tight and with vehicle handle in down horizontal position. Once both are through hole in anchor point are and vehicle frame then check vehicle tire. Check safety chains to frame of towed vehicle. Once strap are where where chains are hooked up to dolly.

IMPORTANT: Chains must not attach to or go over steering or brake parts. Leave enough slack in chains to allow for movement. Do not exceed 5 inches of slack and every 20 miles the driver to ensure they are tight and not rubbing or fraying on suspension components of towed vehicle.

8. If towed vehicle is not seated in rear wheel drive, disconnect drive shaft. (Simply placing transmission in neutral is not sufficient to prevent damage to transmission). You must disconnect drive shaft or use safe safety chains to frame of towed vehicle. If it is necessary to use the transmission lock to prevent transmission fluid loss.

Rear engine/transaxle vehicle cannot be towed with Karkaddy X. All vehicles towed on dolly may be towed with front of vehicle facing forward. Consult your vehicle manual for hooking up and how your vehicle is suitable to be towed.

9. RELEASE PARKING BRAKE ON TOWED VEHICLE. Ensure that steering wheel is locked in straight ahead position. Remove ignition key and lock doors of towed vehicle.

10. Release parking brake on towing vehicle and allow towed 100 feet. Stop and perform safety check. Check hitch, ball, tire, tire pressure, safety chains, tire straps, bolts and other items to ensure they are tight and in correct position. Check all lights to make sure they are operating properly. Release safety chain after first 5 miles and every 5 miles thereafter.

NOTE: Do not unhook Karkaddy X from towing vehicle until towed vehicle is completely unhooked from dolly.

Unloading Towed Vehicle

1. Assume towing vehicle and Karkaddy X are on a level ground and properly hooked up before unloading towed vehicle.

2. Fully engage parking brake of towing and towed vehicles.

3. If removed, re-engage drive shaft of towed vehicle.

4. Straps may be "quick released" by removing parking brake, engaging neutral gear, and pulling parking brake and pushing down sharply. This process will provide easy removal of strap from winch.

5. Remove tire straps and safety chains from towed vehicle. Also release tilt bed as shown in illustration G3.

6. Release parking brake of towed vehicle and allow towed vehicle to roll off dolly.

7. On level ground check the transmission fluid level of towed vehicle. Fluid may have leaked out during loading.

8. Store safety chains and straps in their storage position on each side.

9. Return tilt bed to locked position and release steering lock pin. As shown in illustration F3.

Read these instructions completely before hooking, unhooking or using the tow dolly. Be sure all loading and unloading takes place on a level surface.

1. Make sure towing vehicle's parking brake is fully engaged. Tow dolly must be completely and properly hooked up to the truck before loading towed vehicle. Secure ball hitch to 2" 6,000 lb. towing vehicle ball. Make sure that the hitch and the hitch ball are in good condition and not rusted, loose or stripped. Both the hitch and the hitch ball must be securely attached to the towing vehicle. Make sure hitch is locked down and coupler is secure. Crisscross safety chains under tongue and secure to towing vehicle. Connect tow dolly wire harness to towing vehicle and make sure lights operate correctly. Securely fasten the brake actuator cable S-hook in a straight connection to the towing vehicle. Keep the cable connection at the towing vehicle as centered as possible (allow some slack for turning).



2. To release tie down strap for loading, remove safety pin and unroll straps by grasping ratchet handle pawl (A) and ratchet handle (B) at the same time and push down. Unroll strap enough to remove strap hooks and lay on the ground in front of winches.



3. Before loading (and unloading) towed vehicle, make sure platform and towed vehicle are in straight alignment. Tow dolly must be completely and properly hooked up to the towing vehicle. Towing vehicle must be at least 1,000 lbs. heavier than the tow dolly and towed vehicle combined. Grasp bed release handle on tongue and pull toward coupler. This releases the tilt bed.



Loading Instructions

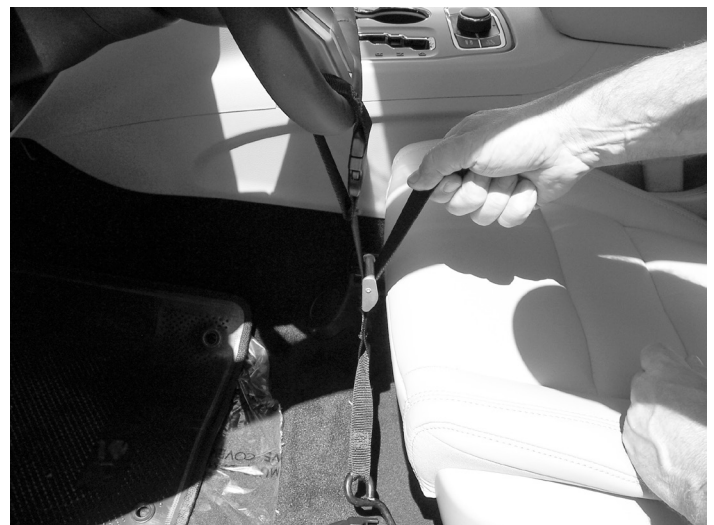
- 4a. Make certain vehicle is centered on the ramps. With someone safely guiding you, slowly drive vehicle onto platform **FRONT FORWARD**. Check air dam & bumper for clearance. Any vehicle mounted on tow dolly must be mounted with front of the vehicle facing forward.



- 4b. Drive towed vehicle onto the platform until tires touch the wheel stops on each side of the platform and platform returns to original level and locked position. Place towed vehicle in park or in gear, and fully engage parking brake. Towed vehicle tires must fit in wheel troughs without overhanging sides. Bed will automatically latch as vehicle is loaded. **VISUALLY CHECK THE LATCH TO BE SURE IT IS SECURED.**



- 4c. Lock steering wheel on towed vehicle with front tires in a straight position. If the towed vehicle does not have a locking steering column the steering wheel must be tied securely. Use Demco steering wheel strap kit #5975.



5. Centertie-down winches in front of tires on towed vehicle and place straps over tires. Place one tie-down strap over each front tire on towed vehicle and secure to rods located at the rear of each platform. **NOTE:** The short side of the hook must face the rear of the tow dolly. Tighten each strap securely with ratchet winch. While tightening straps, pull cross strap forward to ensure even tightening. Tighten straps until each tire starts to flatten against tire stop. After each strap is tight, insert a safety pin in each winch. The winch handle should always be down (horizontal) with the safety pins in place. Retighten straps after first 5 miles and check them every 50 miles thereafter to ensure that they are tight.



6. Tire strap should wrap around the side of the tire to approximately the rim line & cross straps should be at 1 o'clock and 3 o'clock when looking at left side. See Demco website www.demco-products.com for correct strap fit.



Wheel Strap Checks

Your tow dolly is equipped with custom made wheel tie-down straps of a standard size that will fit most tires, however if your tires are too large or too small you will want to exchange these new straps for the proper size straps.

1. **Tire too large** - This is very obvious. The strap will not basket over the tire properly. Call us. We will provide at NO Charge, on an exchange basis, the proper size strap. You must return your new, unused straps and provide us with the Make and Model of your car and the tire size.
2. **Tire too small** - This is not as obvious (see picture). The basket will fit down over the tire very well. The problems cannot be readily seen. You must tighten the straps down solid and then check on the inside of the tire and be sure the strap, when tightened, does not come in contact with any metal that may cause wear or cutting such as strut mounts. If there is contact, you need a smaller strap. Call us. We will provide on a NO Charge, exchange basis, the proper size strap. You must return your new, unused straps and provide us with the Make and Model of your car and tire size.



WARNING: To Prevent Serious Injury Or Death

FAILURE TO FOLLOW THESE INSTRUCTIONS CAN RESULT IN LOSS OF TOWING VEHICLE CONTROL, SEPARATION OF THE TOW DOLLY FROM THE TOWING VEHICLE, SEPARATION OF THE TOWED VEHICLE FROM THE TOW DOLLY

Loading Instructions

7. Hook the towed vehicle safety chains to frame of vehicle directly above the area where the chains are mounted on the tow dolly. Leave just enough slack in the chains to allow suspension movement on the towed vehicle.
CAUTION: Chains must not attach or go over steering or brake parts of towed vehicle.
8. Disconnect towed vehicle driveshaft (rear wheel drive and 4-wheel drive vehicles). Simply placing transmission in neutral is not sufficient to prevent damage to transmission. You must disconnect the drive shaft at the rear axle and remove or secure it to the frame or other structural member. If the driveshaft is removed, it may be necessary to cap the transmission tail shaft to prevent transmission fluid loss.

Rear-engine transaxle vehicles cannot be towed with a tow dolly. **(ALL VEHICLES MOUNTED ON THE TOW DOLLY MUST BE MOUNTED WITH THE FRONT OF VEHICLE FACING FORWARD).** Consult your vehicle's owners manual to help determine if and how your vehicle is suitable to be towed.

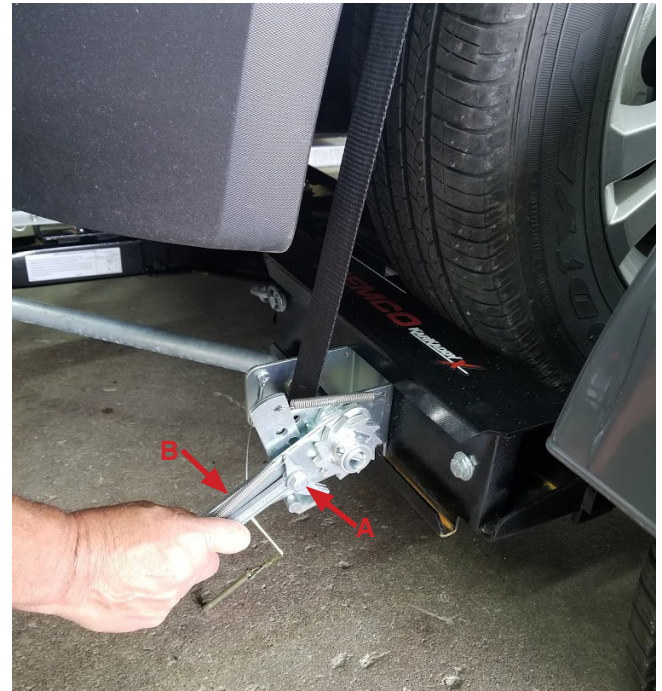
9. Release towed vehicle parking brake and ensure that the steering wheel is locked in a straight forward position.

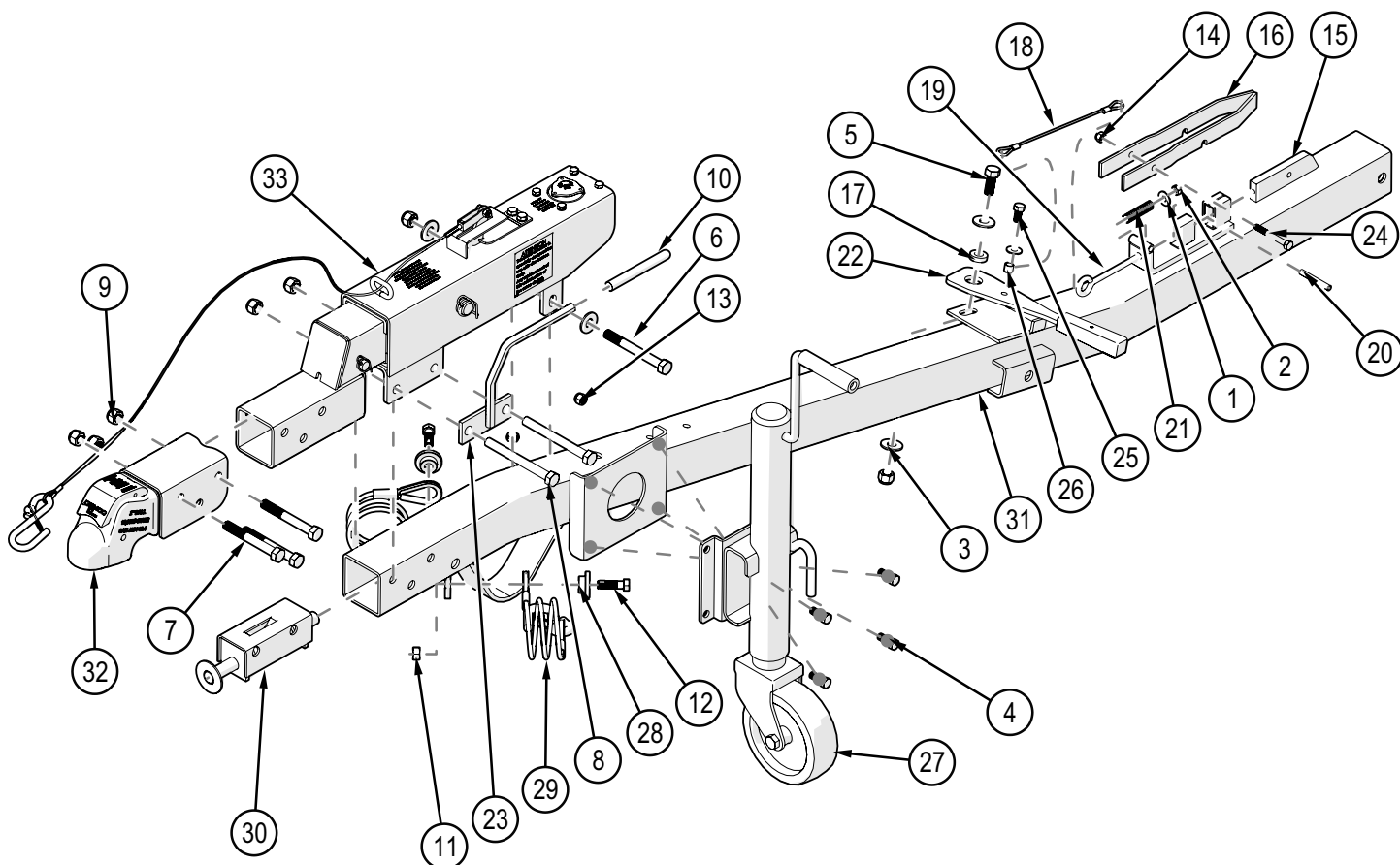
Drive approximately 100 feet. Stop and perform a safety check. Check tire straps, bolts, chains, coupler, tilt bed and other items to ensure that they are tight and in the correct position. In addition, check all taillights and stoplights to make sure that they are operating properly. Repeat the safety check after the first 5 miles and every 50 miles thereafter.

10. TO UNLOAD VEHICLE

- Ensure that towed vehicle parking brake is fully engaged, then loosen and remove wheel straps. **NOTE:** Tie down straps must be "quick-released" by grasping ratchet pawl (A) and ratchet handle (B) simultaneously and pushing down sharply. This process will permit easy removal of strap from winch.
- Pick a level, flat area and park in a straight line.
- Do not unhook tow dolly from the towing vehicle until the towed vehicle is completely unloaded from tow dolly.
- Fully engage towing vehicle's parking brake.
- Make sure that platform and towed vehicle are straight.
- Reinstall driveshaft, if necessary.
- Ensure that towed vehicle parking brake is fully engaged, then loosen and remove wheel straps.
- Remove vehicle safety chains from towed vehicle.
- Release tilt bed lock down.
- Release parking brake on towed vehicle and slowly back the towed vehicle off the tow dolly.

11. **TO PULL THE TOW DOLLY EMPTY** - Make sure the straps are secured in the storage position. Tow dolly safety chains must be stored to prevent being drug on the road. Tow dollies with hook type straps, the hook attaches to the rear of the ramp for storage, then tighten strap using ratchet. The ratchet handle should always be left in a down (horizontal) position when towing tow dolly loaded or unloaded. **DO NOT ATTEMPT TO PULL TOW DOLLY WITH WHEEL PLATFORM IN LOADING (tilted) POSITION.**





ITEM #	PART #	DESCRIPTION	Qty
1	00004	WASHER, FLAT, .313	2
2	00007	NUT, .313 NC HEX	1
3	00085	.50 FLAT WASHER	4
4	00907	BOLT .375NC X 1.00 GR5 HEX	4
5	00967	BOLT .50NC X 1.25 GR5 HEX	1
6	01338	BOLT .50NC X 4.50 GR5 HEX	1
7	01896	BOLT .50NC X 4.00 GR5 HEX	3
8	01975	BOLT .50NC X 5.00 GR5 HEX	2
9	02178	NUT, .50NC LOCK, NY. INSERT	7
10	02189	BLACK HANDLE GRIP	1
11	02209	NUT, .438NF HEX HEAD GR.8	2
12	02377	BOLT .438NF X 1.50 GR8 EPOXY	2
13	02592	NUT, .375NC NYLON LOCK	4
14	02802	NUT, .313 NC NYLON LOCK	1
15	03379	LATCH BLOCK	1
16	03381	LATCH CATCH	1
17	03382	LATCH HANDLE BUSHING	1

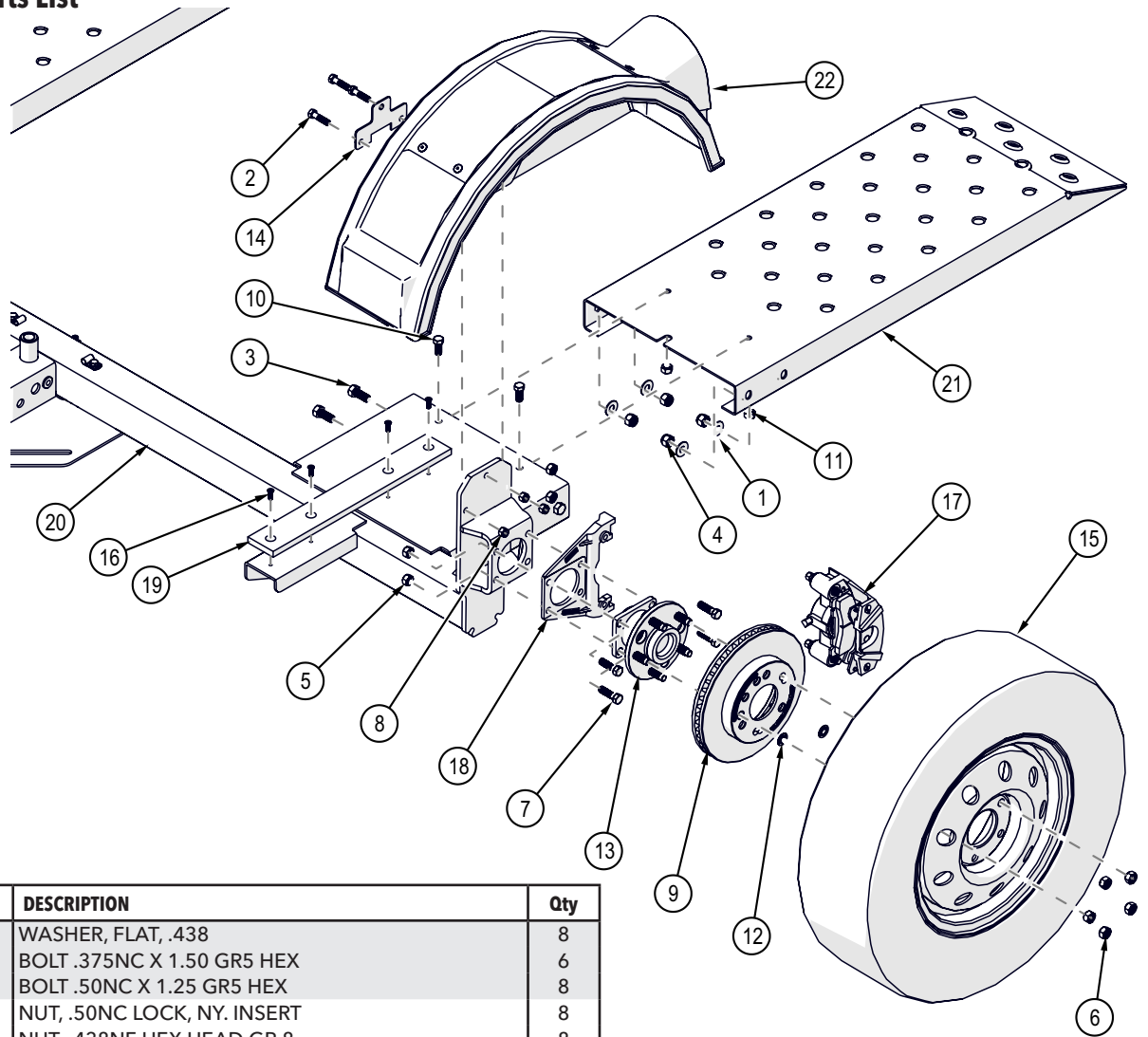
Please order replacement parts by PART NO. & DESCRIPTION.

ITEM #	PART #	DESCRIPTION	Qty
18	03433	CABLE ASSEMBLY, LATCH	1
19	03434	BOLT .313NC X 4.00 GR5 EYE	1
20	03435	ROLL PIN, .313 X 2.25	1
21	03499	LATCH SPRING, SS	1
22	03574	RATCHET HANDLE	1
23	04017	BOLT ON LIFT HANDLE	1
24	04221	BOLT .313NC X 2.50 GR5 HEX	1
25	05444	BOLT .375NC X .75 GR5 HEX EPOXY	1
26	05449	BUSHING, PAWL PIVOT	1
27	11683	WHEEL JACK	1
-	03646	REPLACEMENT WHEEL ONLY	-
-	14542-95	WHEEL BUSHING REPLACEMENT ONLY	-
-	13303	PLASTIC CAP REPLACEMENT ONLY	-
28	12229	SAFETY CABLE MOUNTING WASHER	2
29	12238	CABLE, SAFETY 36" BLACK JACKET	2
30	12445	SPRING RETURN SYSTEM	1
31	12714-72	TONGUE, KARR-KADDY	1
32	17436-95	2" CAST COUPLER	1
33	6057	ACT DA91 DROP TUBE 6000# DISC	1

Please order replacement parts by PART NO. & DESCRIPTION.

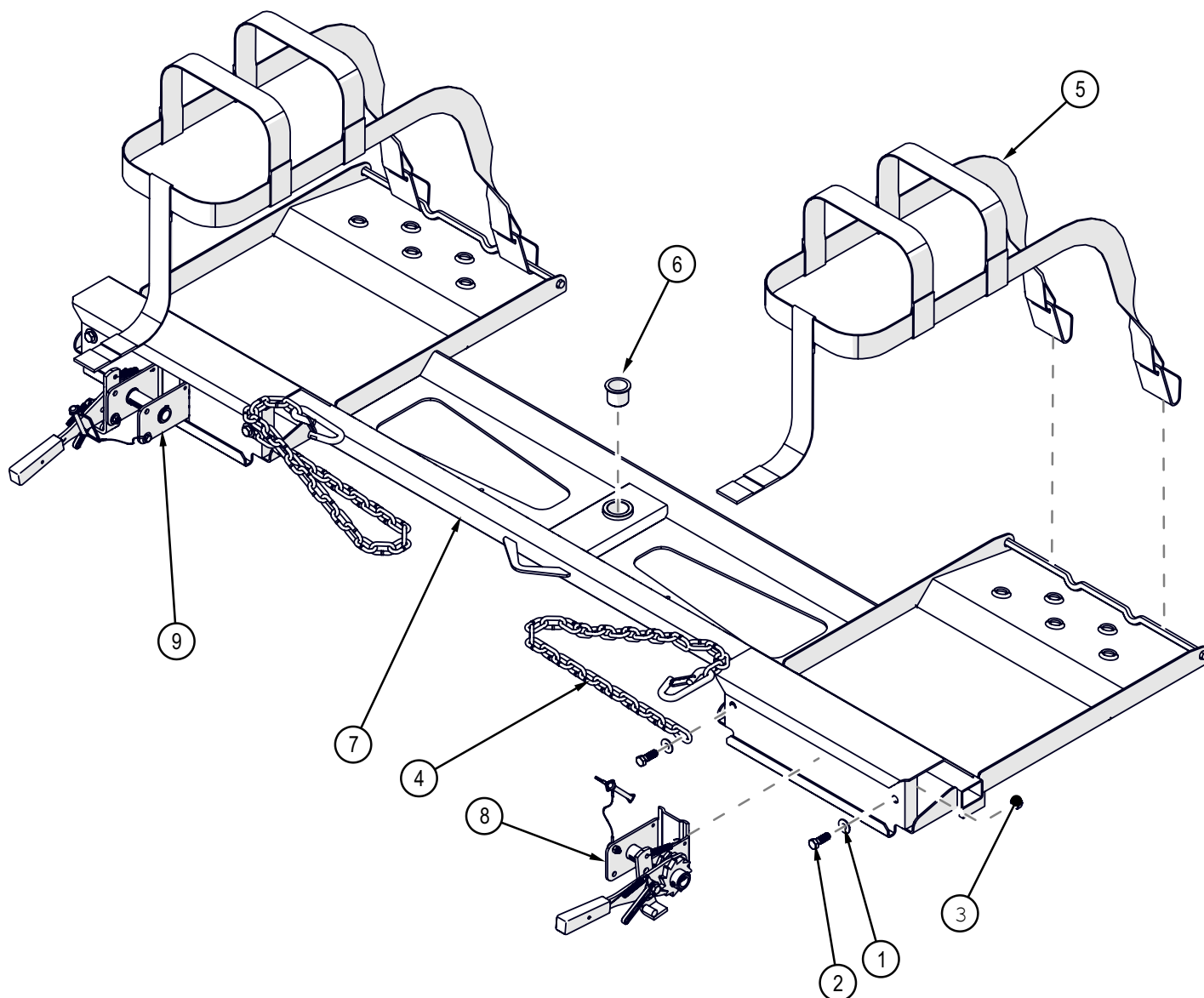
Undercarriage Breakdown

Undercarriage Parts List



ITEM #	PART #	DESCRIPTION	Qty
1	00205	WASHER, FLAT, .438	8
2	00914	BOLT .375NC X 1.50 GR5 HEX	6
3	00967	BOLT .50NC X 1.25 GR5 HEX	8
4	02178	NUT, .50NC LOCK, NY. INSERT	8
5	02209	NUT, .438NF HEX HEAD GR.8	8
6	02213	NUT WHEEL 12MM X 1.5 ZINK	10
7	02377	BOLT .438NF X 1.50 GR8 EPOXY	8
8	02592	NUT, .375NC NYLON LOCK	6
9	03927	10" ROTOR	2
10	04167	BOLT .438NF X 1.00 GR8 HEX	4
11	04168	NUT, .434NF NYLON INSERT LOCK	4
12	04174	WASHER, DRUM RETAINER, 12MM	4
13	04369	5-BOLT HUB/SPINDLE	2
-	02917	HUB STUD BOLT REPLACEMENT	-
14	04424	FENDER BACK-UP PLATE	2
15	5965	WHEEL/TIRE	2
16	11779	SCREW, .25NC X .75 FLAT HEAD PHIL	8
17	13825	WHOLE CALIPER	2
-	13824	BRAKE PADS FOR COMPLETE AXLE	-
-	14179	KIT DISC BRAKE FITTING (includes items listed below)	-
-	14798	90°FITTING	1
-	13825-5	BLEEDER VALVE	2
-	-	RUBBER BUSHING	2
-	14486	STAINLESS STEEL CALIPER BOLT (not shown)	2
-	14487	STAINLESS STEEL CALIPER BUSHING (now shown)	2
18	13920-92	CALIPER MOUNT	2
19	14784	WEAR PAD	2
20	17417-72	UNDERCARRIAGE f/TOW DOLLY	1
21	17418-96	TOW DOLLY RAMP	2
22	5978	FENDER LEFT GRAY W/ LIGHT	1
23	5979	FENDER RIGHT GRAY W/ LIGHT (not shown)	1

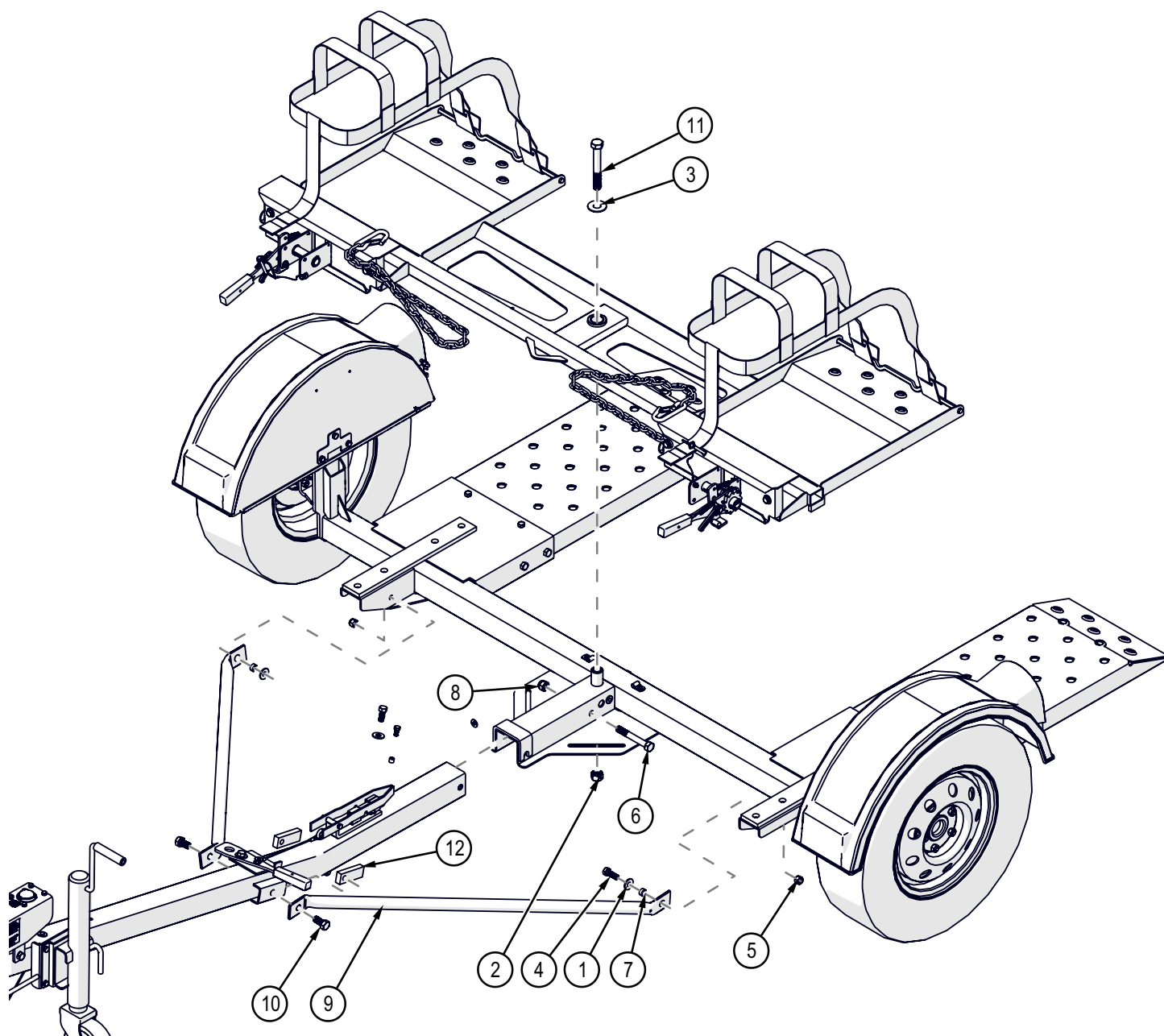
Please order replacement parts by PART NO. & DESCRIPTION.



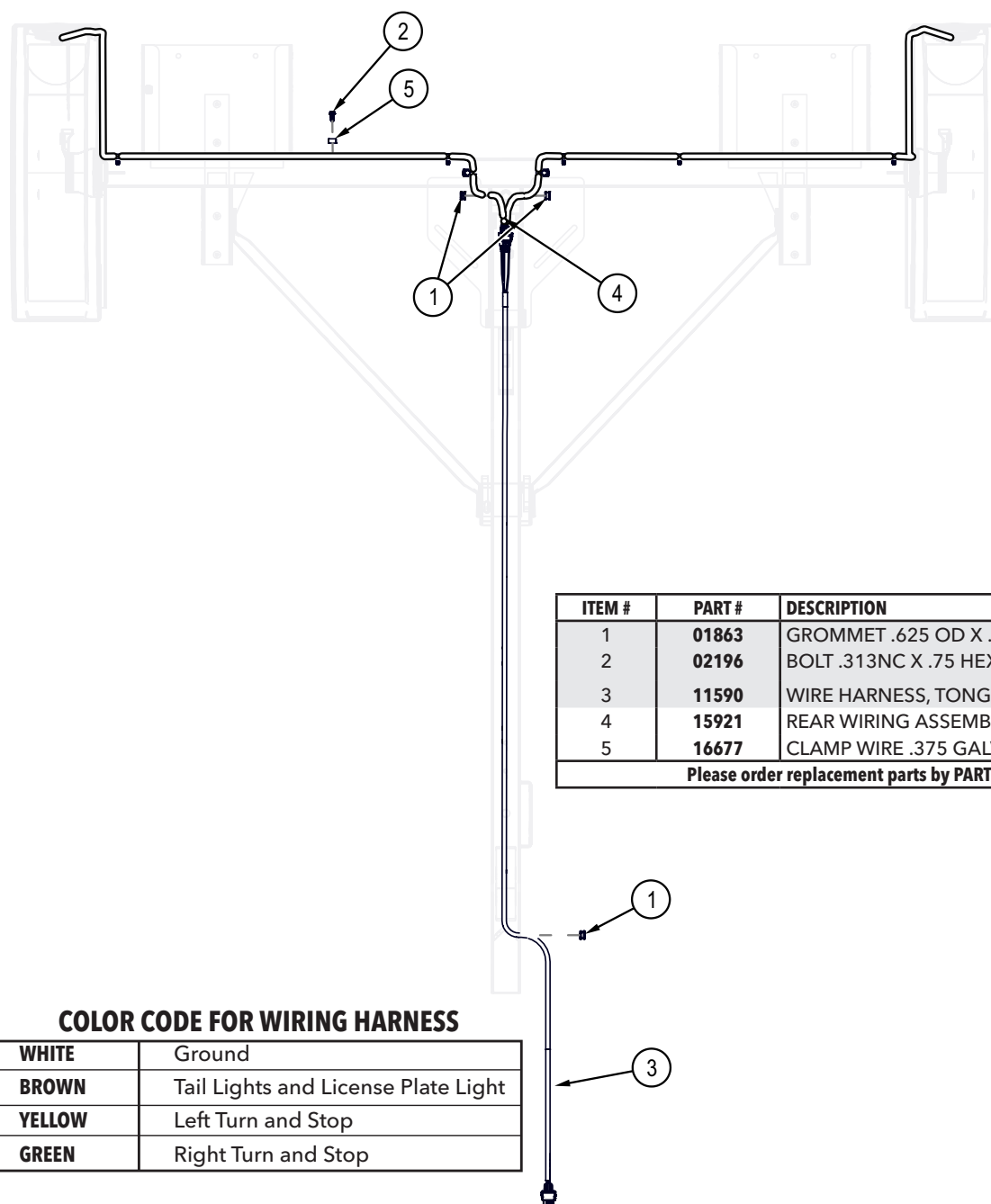
ITEM #	PART #	DESCRIPTION	Qty
1	00059	WASHER, FLAT .375	4
2	01898	BOLT .438NC X 1.25 GR5 HEX	4
3	02771	NUT, .438NC NYLON LOCK INSERT	4
4	02383	36" SAFETY CHAIN FOR TOW DOLLIES	2
5	03528	STRAP, SHORT 3-POINT TIE DOWN	2
6	12293	1.25 ID X 1.25 PLASTIC BUSHING	1
7	16675-72	TOP PLATFORM	1
8	5432	LEFT WINCH SUB-ASSEMBLY	1
9	5433	RIGHT WINCH SUB-ASSEMBLY (not shown)	1
Please order replacement parts by PART NO. & DESCRIPTION.			

Brace Pipe Assembly Breakdown

Brace Pipe Assembly Parts List



ITEM #	PART #	DESCRIPTION	Qty
1	00085	.50 FLAT WASHER	2
2	00476	NUT .75NC PUNCH LOCK	1
3	00492	WASHER, FLAT, .75	1
4	01254	BOLT .50NC X 1.50 GR5 HEX	2
5	02178	NUT, .50NC LOCK, NY. INSERT	2
6	02434	BOLT, .625NC X 4.50 HEX HEAD GR.5	1
7	02579	BUSHING, SPACER PIVOT	2
8	02587	NUT, .625 NC NYLON LOCK	1
9	03394-96	BRACE PIPE	2
10	03503	BOLT .625NC X 1.25 HEX W/NYLON	2
11	07246	BOLT, .75 NC X 5.50 HEX HEAD GR. 5	1
12	11971	THREADED NUT PLATE, .625NC	2
Please order replacement parts by PART NO. & DESCRIPTION.			



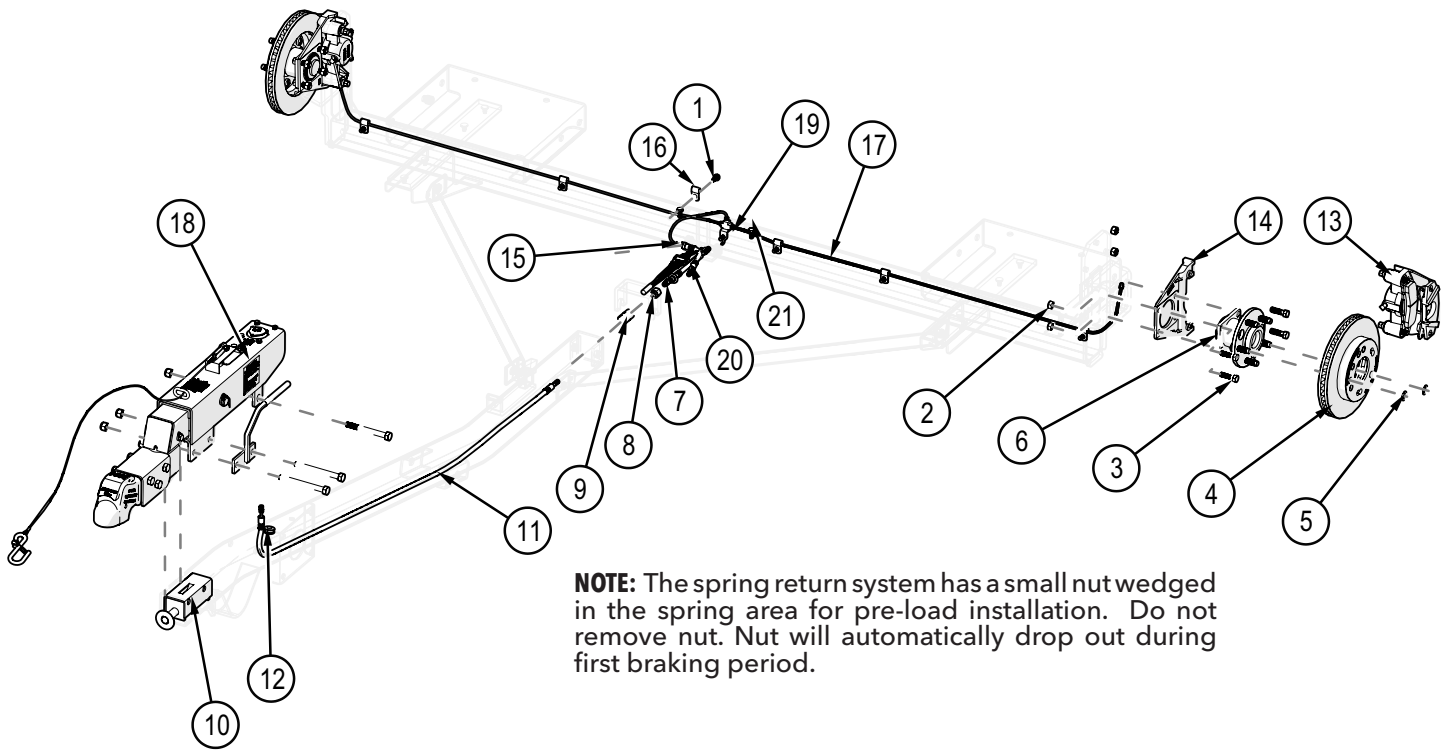
ITEM #	PART #	DESCRIPTION	Qty
1	01863	GROMMET .625 OD X .375 ID X .25 THK	3
2	02196	BOLT .313NC X .75 HEX HD SELF TAPPING	8
3	11590	WIRE HARNESS, TONGUE	1
4	15921	REAR WIRING ASSEMBLY	1
5	16677	CLAMP WIRE .375 GALV W/ VINYL	8
Please order replacement parts by PART NO. & DESCRIPTION.			

Testing Circuitry

1. With headlights in "ON" position, the taillight should be lighted.
2. Start engine and have someone depress brake pedal. Brake lights of the tow dolly and towing vehicle should come "on" and "off" simultaneously with each application.
3. Put left turn signal on. Left turnlight of tow dolly and towing vehicle should flash simultaneously. Should the turn signal light of the tow dolly function opposite to those of the towing vehicle, it is probable that the YELLOW and GREEN wires have been reversed. Check the plug connection under the tongue of the tow dolly to make sure wire colors are not crossed at that point. If plug connection is correct, correct problem by reversing yellow and green wire connection on the towing vehicle.
4. **CAUTION:** Many flashers for vehicle turn signals will not carry the additional load of tow dolly turn signals. If normal operation does not occur when connected to the tow dolly, a heavy duty replacement flasher may be obtained through auto parts outlets.

Brakes Breakdown

Surge Brake Parts List



ITEM #	PART #	DESCRIPTION	Qty	ITEM #	PART #	DESCRIPTION	Qty
1	02196	BOLT .313NC X .75HEX HEX SELF TAPPING	8	11	12508	BRAKE HOSE, 63"	1
2	02209	NUT, .438NF HEX HEAD GR.8	8	12	13047	GROMMET, 1.0625"OD X .500"ID	1
3	02377	BOLT .438NF X 1.50 GR8 EPOXY	8	13	13825-92	WHOLE CALIPER	2
4	03927	10" ROTOR	2	14	13920-92	CALIPER MOUNT	2
5	04174	WASHER, DRUM RETAINER, 12MM	4	15	14533	9" .188 BRAKE LINE	1
6	04369	5-BOLT HUB/SPINDLE	2	16	16677	CLAMP WIRE .375 GALV W/ VINYL	6
7	05679	BRAKE FITTING .125 FULL FLOW	2	17	16678	BRAKE LIKE 48"	2
8	11617	QUICK COUPLER MALE	1	18	6057	ACT DA91 DROP TUBE 6000# DISC	1
9	11618	FEMALE COUPLER	1	19	SB7785	FTG, TEE, .188" UNION, W/ MTG BRACKET	1
10	12445	SPRING RETURN SYSTEM	1	20	SB7H67	BRAKE HOSE, 7" SWIVEL MALE & SOLID FEMALE	2
Please order replacement parts by PART NO. & DESCRIPTION.				Please order replacement parts by PART NO. & DESCRIPTION.			

Bleeding the Brakes

The first requirement for safe, sure hydraulic braking is the use of quality brake fluid. Use only DOT-3 or DOT-4 brake fluid from a sealed container.

If pressure bleeding equipment is available, follow the manufacturer's instruction in bleeding the system.

If system must be bled manually, proceed as follows: Fill master cylinder with fluid. Install bleeder hose on top bleeder of first caliper to be bled.

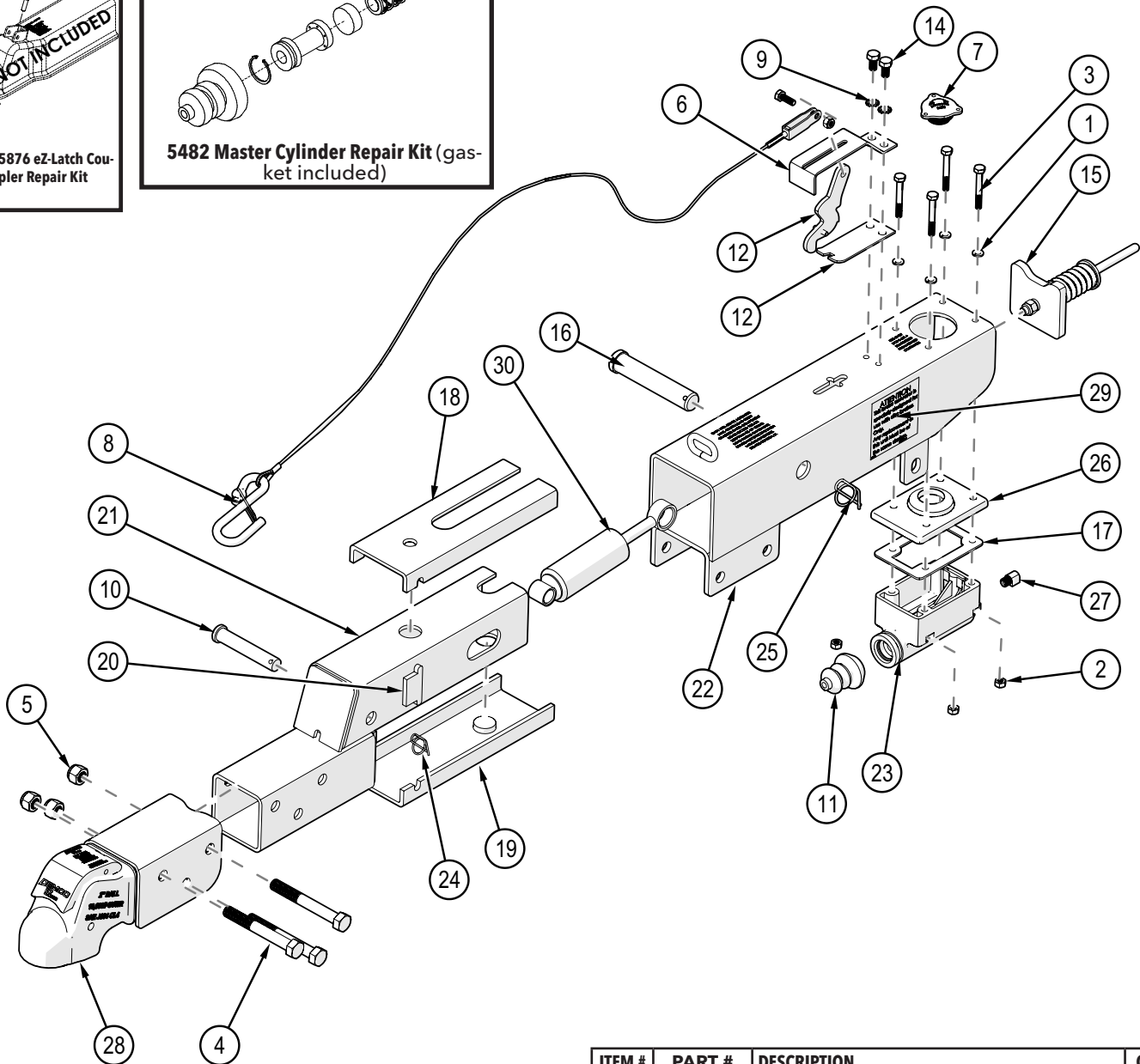
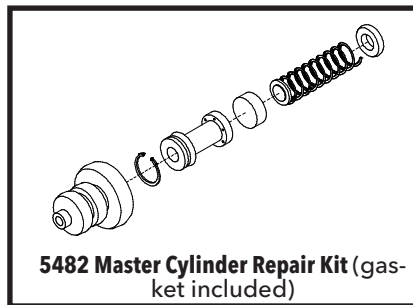
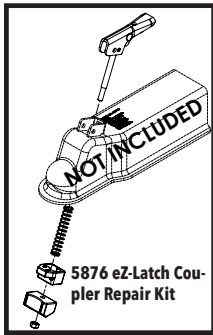
NOTE: always bleed brakes by using the top bleed screw on the caliper.

Have loose end of hose submerged in brake fluid in glass container to observe bubbling.

By loosening the top bleeder screw located on the caliper one turn, the system is open to the atmosphere through the passage drilled in the screw. Pump actuator with long steady strokes. The bleeding operation is completed when bubbles no longer rise to the surface of the fluid. Be sure to close bleeder screw securely.

Repeat bleeding operation at each caliper. During the bleeding process, replenish the brake fluid, so the level does not fall below the 1/2 full level in the master cylinder reservoir. After bleeding is complete, make sure master cylinder reservoir is filled and filler cap is securely in place.

After the bleeding operation has been completed, apply pressure to the system and check the whole brake system for leaks.



ITEM #	PART #	DESCRIPTION	Qty
1	00057	WASHER, .25 SPRING LOCK	4
2	00062	NUT .25NC HEX	4
3	00618	BOLT .25NC X 2.00 GR5 HEX	4
4	01896	BOLT .50NC X 4.00 GR5 HEX	3
5	02178	NUT, .50NC LOCK, NY. INSERT	3
6	03866-95	EMERGENCY LEVER GUIDE	1
7	03876	MASTER CYLINDER CAP ASSEMBLY	1
8	05408	SAFETY CABLE F/ ACTUATORS	1
9	05424	WASHER, .313 EXTERNAL TOOTH LOCK	2
10	05426	PIN, FRONT SHOCK	1
11	05687	MASTER CYLINDER BOOT	1
12	05693-95	SPRING, SAFETY LEVER	1
13	05951	EMERGENCY LEVER	1
14	05961	BOLT .313NC X .625 GR5 HEX	2

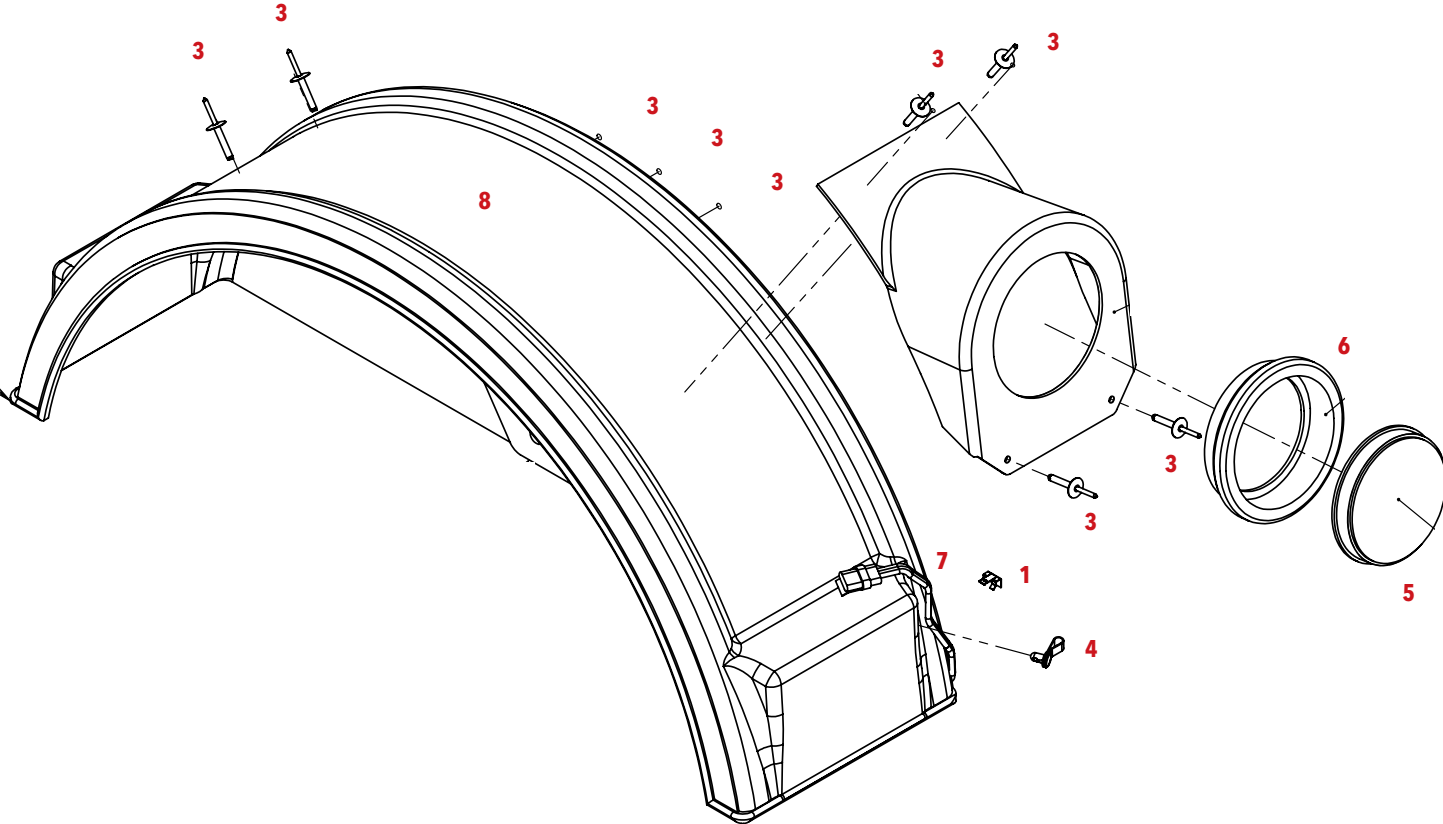
Please order replacement parts by PART NO. & DESCRIPTION.

ITEM #	PART #	DESCRIPTION	Qty
15	05977	PUSH ROD ASM DA91 & DA95	1
16	05986-95	COLD HEADED CLEVIS PIN, .875	1
17	09153	CORK GASKET F/ MASTER CYLINDER	1
18	10965	DA91 & DA10 SLIDE CHANNEL TOP	1
19	10966	DA91 & DA10 SLIDE CHANNEL BOT	1
20	10967	SLIDER SPACER	2
21	11079-95	DROP TUBE MOUNT INNER SLIDE DA91	1
22	11164-95	OUTER CASE DA91, 3 BOLT MOUNT	1
23	11190	COMPOSITE MASTER CYLINDER DISC	1
24	12396	RUE RING LOCK COTTER 5/8 SHAFT	1
25	12397	RUE RING LOCK COTTER, 7/8 SHAFT	1
26	12557	CAP FOR MASTER CYLINDER	1
27	14798	90 DEGREE FITTING	1
28	17436-95	2" CAST COUPLER	1
29	BD21001	DECAL DISC BRAKES	1
30	SB12426	SHOCK, DAMPER	1

Please order replacement parts by PART NO. & DESCRIPTION.

Fender Breakdown

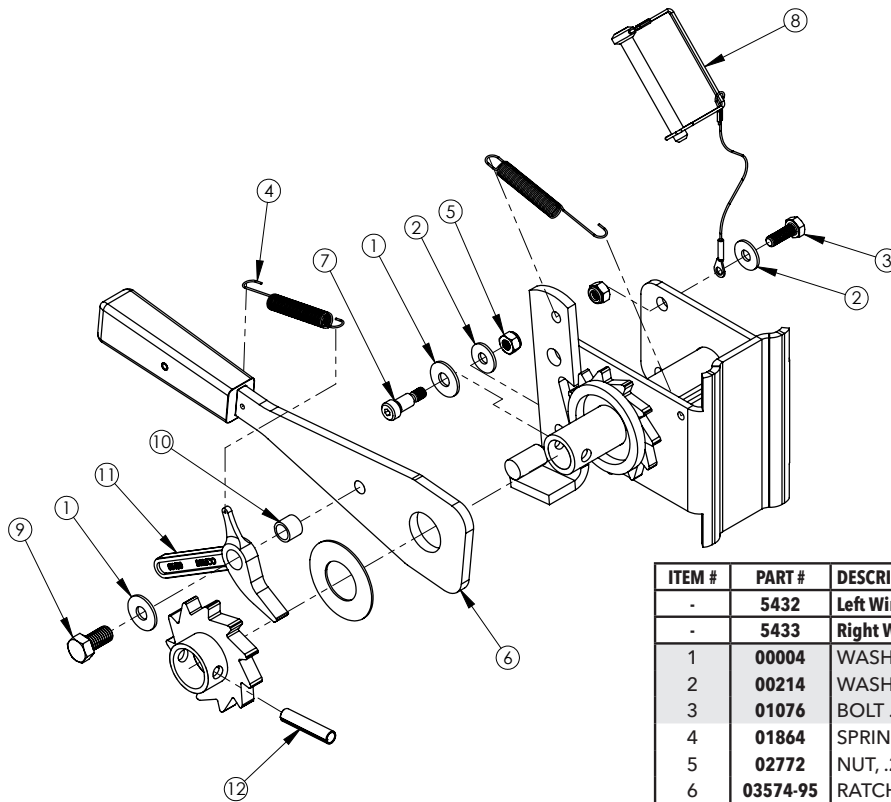
Fender Parts List



ITEM #	PART #	DESCRIPTION	Qty
-	5978	Left Fender Assembly	-
-	5979	Right Fender Assembly (Shown)	-
1.	04425	Tinnerman U-clamp	2
2.	04508	Amber Reflector (not shown)	1
-	04804	Red Reflector (not shown)	1
3.	16450	3/16" x 1/2" Pop Rivet	8
4.	05443	Nylon Cable Hanger	1
5.	11209	4" LED Tail Light	1
6.	05447	Rubber Grommet for Light	1
7.	11206	LED Fender Harness	1
8.	14121	Left Fender Assembly	1
-	14122	Right Fender Assembly	1

Please order replacement parts by PART NO. and DESCRIPTION.

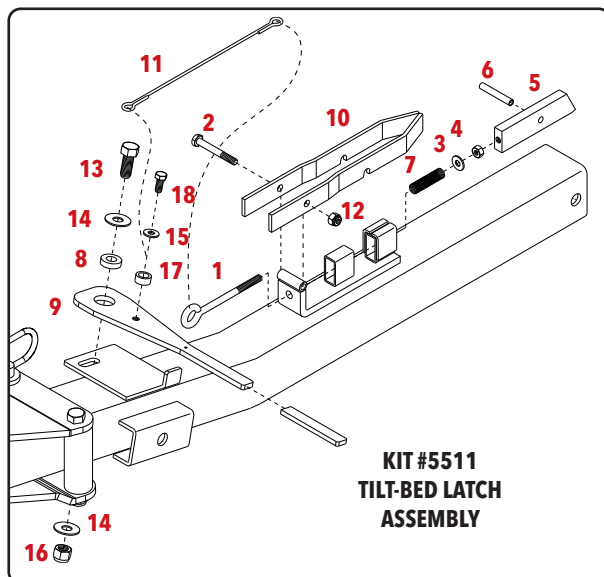
Winch Parts List



ITEM #	PART #	DESCRIPTION	Qty
-	5432	Left Winch Assembly (Shown)	-
-	5433	Right Winch Assembly	-
1	00004	WASHER, FLAT, .313	2
2	00214	WASHER, FLAT, .25	2
3	01076	BOLT .25NC X .75 GR5 HEX	1
4	01864	SPRING, WINCH PAWL	2
5	02772	NUT, .25NC LOCK NYLON INSERT	2
6	03574-95	RATCHET HANDLE	1
7	03578	.313 X .50 SHOULDER BOLT	1
8	05337	SAFTY LOCK PIN ASSEMBLY	1
9	05444	BOLT .375NC X .75 GR5 HEX EPOXY	1
10	05449	BUSHING, PAWL PIVOT	1
11	05450	PAWL RATCHET	1
12	11750	ROLL PIN, .313 X 1.50	1
-	5227	REPLACEMENT WINCH PAWL KIT (includes 1 of * items)	-

Please order replacement parts by PART NO. and DESCRIPTION.

Tilt-Bed Latch Parts List

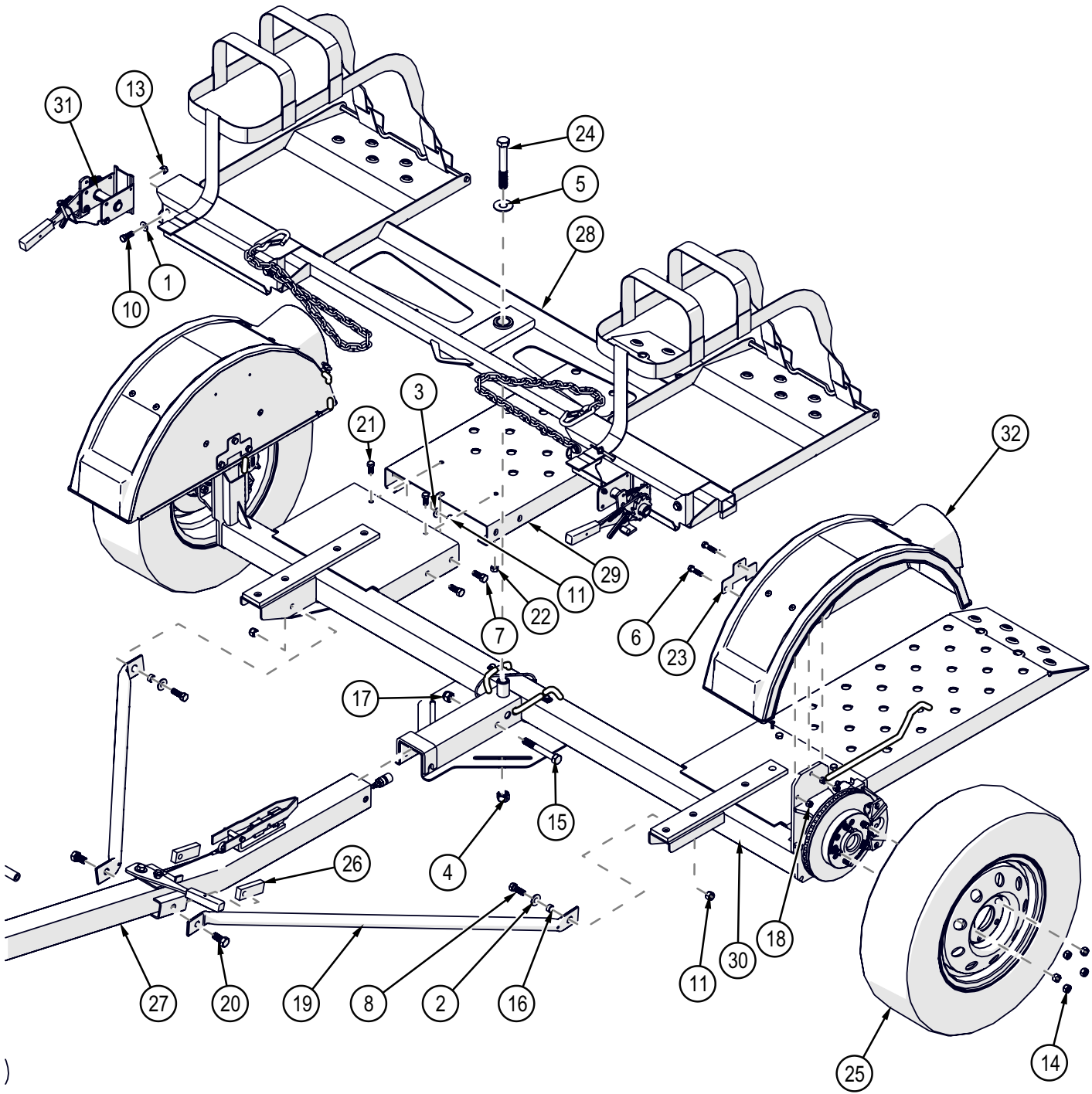


ITEM #	PART #	DESCRIPTION	Qty
	5511	Tilt-Bed Latch Kit	-
1*	03434	5/16"-18 UNC x 4" Eye Bolt	1
2*	04221	5/16"-18 UNC x 2-1/2 Hex Hd Bolt (Gr 5)	1
3*	00004	5/16" Flatwasher	1
4*	00007	5/16"-18 UNC Hex Nut	1
5*	03379-95	Latch Block	1
6*	03435	Roll Pin (5/16" x 2-1/4")	1
7*	03499	Latch Spring - Stainless Steel	1
8.	03382-95	Latch Handle Pivot Bushing	1
9.	03574-95	Latch Handle	1
10.	03381-95	Latch Catch	1
11.	03433	Latch Cable	1
12.	02802	5/16-18 UNC Nylon Insert Locknut	1
13.	00967	1/2"-13UNC x 1-1/4" lg. Hex Hd Bolt (gr.5)	1
14.	00085	1/2" Flatwasher	2
15.	00059	3/8" Flat Washer	1
16.	02178	1/2"-13UNC Nylon Insert Locknut	1
17.	05449	Spacer Bushing - Stainless Steel	1
18.	05444	3/8"-16 UNC x 3/4" Epoxied Hex Bolt (Gr 5)	1

Please order replacement parts by PART NO. and DESCRIPTION.

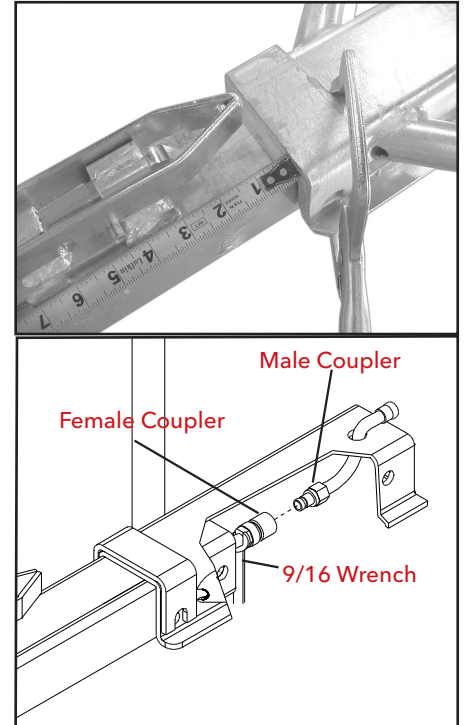
* Items included in 5511 kit

Parts View



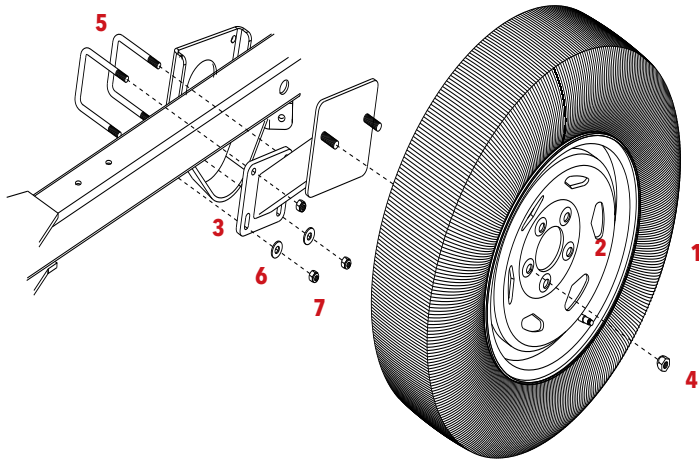
CratedTow Dolly Assembly Instructions

1. Place the main frame (#30) on blocks or some other sturdy support so that the frame rests approximately 8" - 10" off the ground.
2. With an assistant, place tongue assembly (#27) into main frame channel and position latch on tongue approximately 3" from front of channel. Clamp tongue to main frame and support front of tongue.
3. Locate the four bullet connectors extending out the back of the tongue and plug into the connector protruding from under the main frame channel. Plug into the flat four connector by matching the colors. Do not cross colors when making this connection.
4. Using the open end of a 9/16" wrench to support the back of the female coupler, (as shown below) push drip free quick couplers together. **NOTE: When pushing the male connector into the female connector, the female knurl collar will snap towards male connector automatically, locking the connection.**
5. Brake line and wiring must be above bolt also coupler assembly must be ahead of bolt. With an assistant, gently slide the tongue assembly (#27) back in line with the main frame hole placement. RE-clamp the tongue to the main frame. Using a narrow flat tool, i.e. a small putty knife or similar tool, through the opening between the back of the tongue assembly and the channel of the main frame, raise the wiring and brake line up. This will help clear the way to attach the tongue using the 5/8 X 4-1/2 grade 5 bolt (#15) and lock (#17) torque to 50 ft. pounds. Do Not torque over 50 ft. pound or the bed will not tilt.
6. Lay the bracing struts (#19) out along the tow dolly tongue with the back end (the end with the larger hole in it) of the bracing strut toward the main frame. Loosely bolt the back of each bracing strut to the trailer frame as shown using 1/2" x 1-1/2" grade 5 bolt (#8), flatwasher (#2), pivot bushing (#16) and locknut (#11). Hold up the front end (the end with the smaller hole) of each bracing strut to the tongue and secure with two 5/8" x 1-1/4" epoxied hex head bolts (#20) and nut plate (#26). Torque the 1/2" x 1-1/2" bolt with the pivot bushing to 75 ft. lbs. Torque the two 5/8" x 1-1/4" epoxied hex head bolts to 100 ft. lbs.
7. Attach the tilt bed ramps (#29) as shown using two 7/16" x 1" grade 8 bolts (#21) and lock nuts (#22) on top of each ramp, and four, two on each side of the ramp of 1/2" x 1-1/4" bolts (#7) and 1/2" nylon lock nuts (#11). Turn top platform in either direction to access top mounting holes.



Tow Dolly Options

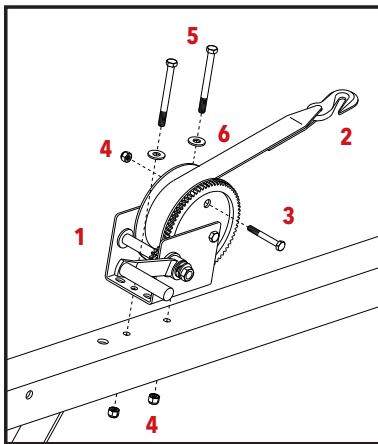
Spare Tire & Mount



ITEM	PART #	DESCRIPTION	QTY
	5965	Optional Spare Tire	1
1.	04826	ST205/75R 14"x"C" BSW Radial Tire	1
2.	15113	5.5 x 14" Rim	1
	RKSTM	Spare Tire Mounting Bracket	1
3.	02193-30	Spare Tire Bracket	1
4.	02917	Stud Bolt (12mm x 1.5)	1
5.	02933	Wheel Nut (12mm) Chrome	2
6.	02759	3/8"-16UNC Square U-Bolt	2
7.	00059	3/8" Flatwasher	2
8.	02592	3/8"-16UNC Nylon Insert Locknut	4
Please order replacement parts by PART NO. and DESCRIPTION.			

* All options may not mount on tow dolly simultaneously.*

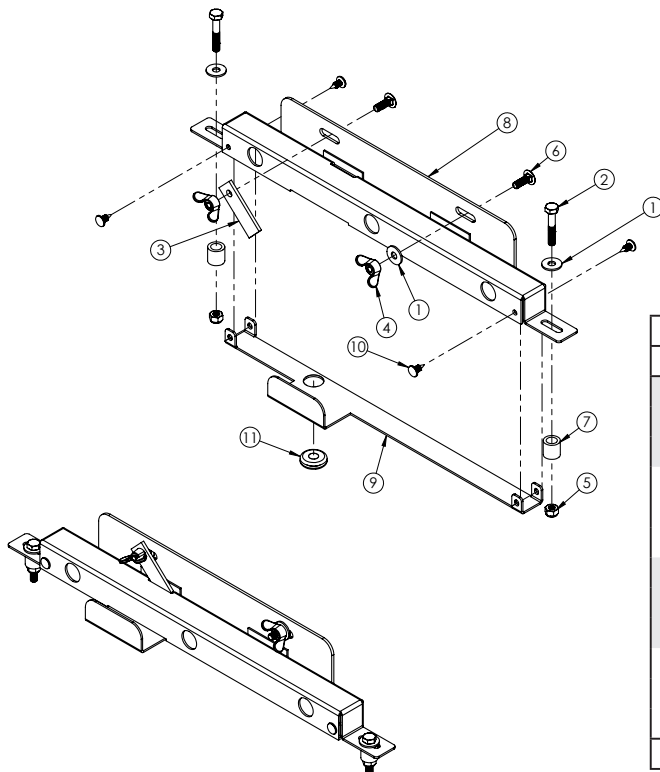
Winch



ITEM	PART #	DESCRIPTION	QTY
	KK2W	Optional Winch	1
1	04620	WINCH MECHANISM (1400 CAPACITY)	1
-	04621	REPLACEMENT HANDLE	-
2	01738	STRAP ASSEMBLY (includes strap & hook)	1
3	02207	BOLT, 3/8" - 16UNC X 3" HEX HEAD GR.5	1
4	02769	BOLT, 3/8" - 16UNC X 4" HEX HEAD GR.5	2
5	00059	FLATWASHER, 3/8"	2
6	02592	LOCKNUT, 3/8" - 16UNC NYLON INSERT	3
Please order replacement parts by PART NO. and DESCRIPTION.			

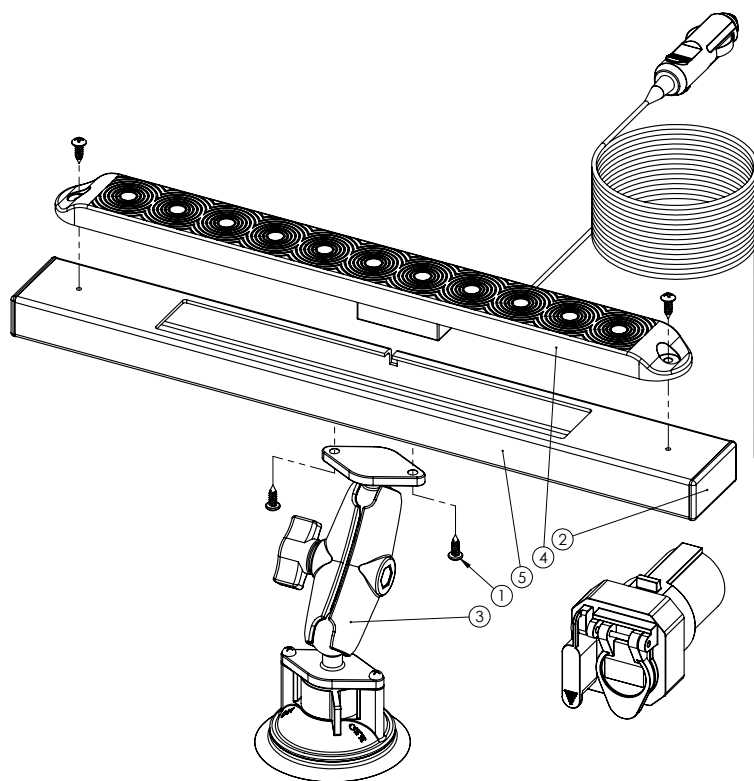
* All options may not mount on tow dolly simultaneously.*

License Plate Bracket Assembly



ITEM	PART #	DESCRIPTION	QTY
-	6420	LICENSE PLATE BRACKET ASSEMBLY	-
1	00214	FLAT WASHER .25"	3
2	00684	BOLT, .25NC X 1.50 GR6 HEX	2
3	02580-95	LICENSE PLATE SUPPORT CLIP	1
4	02770	WING NUT, .25NC NYLON INSERT	2
5	02772	NUT .25NC LOCK NYLON INSERT	2
6	04176	BOLT, CARRIAGE .25NC X .75	2
7	12667	RETAINER BRACKET BUSHING	2
8	16239	3 LIGHT CLUSTER MAIN HOUSING	1
9	16240	3 LIGHT CLUSTER BOTTOM	1
10	16241	PUSH RIVET .188	4
11	16242	RUBBER GROMMET	1
-	15927	WIRING HARNESS w/LED LIGHTS (NOT SHOWN)	-
Please order replacement parts by PART NO. and DESCRIPTION			

Light Bar



ITEM	PART #	QTY	DESCRIPTION
	6343	1	LED Light Bar
1	6340	1	LIGHT BAR MOUNTING KIT
2	6341	1	TRANSMITTER & RECEIVER KIT
3	16868	2	END CAP
4	69871	1	LIGHT BAR TUBE
5	16045	4	SCREW #8 X .50 SHEET METAL

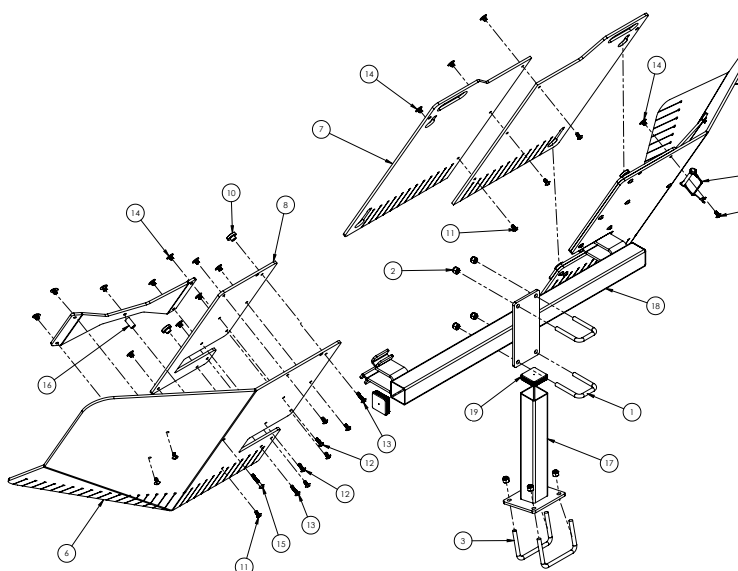
Please order replacement parts by PART NO. and DESCRIPTION.

Sentry Deflector

SENTRY DEFLECTOR (5950) PARTS LIST

ITEM	PART #	DESCRIPTION	QTY
1	02128	U-BOLT, SQ, .375NC X 2.063 X 3.00	2
2	02592	NUT, .375NC NYLON LOCK	8
3	04494	U-BOLT, SQ, .375 X 3.00 X 4.00	2
4	05337	SAFETY LOCK PIN ASSEMBLY	1
5	10131	ROCK GUARD, LEFT	1
6	10132	ROCK GUARD, RIGHT	1
7	10133	DEFLECTOR CENTER SECTION	2
8	10134	DEFLECTOR MOUNTING PLATE	2
9	10135	DEFLECTOR BRACE/HANDLE	2
10	10136	RETAINER BUTTON	4
11	10183	SCREW, .25 NC X .50 PHILLIPS HEAD	17
12	10184	SCREW, .25 NC X .75 PHILLIPS HEAD	4
13	10185	SCREW, .25 NC X 1.00 PHILLIPS HEAD	4
14	10186	T-NUT, .25 NC X .41 BARREL	23
15	11264	SCREW, .25 NC X 1.50 PHILLIPS HEAD	2
16	11265	SPACER BUSHING	2
17	13731-81	UPRIGHT POST MOUNT	1
18	13732-81	SENTRY CROSSMEMBER TD MNT	1
19	17044	CAP PLUG 2" SQ X 10-14 GA	3

Please order replacement parts by PART NO. and DESCRIPTION



* All options may not mount on tow dolly simultaneously.*



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