

April 18, 2018

**TOWING (STUCK VEHICLE & RECOVERY)
VEHICLE TOWING VEHICLE**

PURPOSE/APPLICATION

To safely and efficiently extract a stuck vehicle.

PPE

- CSA Safety glasses
- Task specific gloves (Cut/abrasion resistant)
- High visibility clothing
- Clothing that protects arms and legs
- CSA Safety boots
- CSA Hard hat

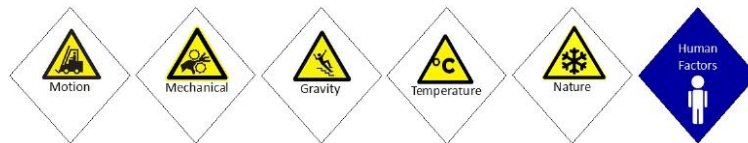
TRAINING

- Training appropriate to position

TOOLS/EQUIPMENT

- Emergency roadside kit (reflective triangles)
- Proper rated Tow Strap (2-3 times stuck vehicle weight)
- Proper rated Clevis (drop forged with screw pin)
- Proper rated connection points (must exceed sling load rating)
- Optional (radios, recovery hitch, heavy coat or blanket)

HAZARD SOURCES



#	Job Steps	Hazards	Control Measures
1	Stop, contact supervisor and complete pre-job / task hazard assessment.	Human Factor Communications and understanding.	Elimination / Substitution Consider alternate method such as a tow-truck or heavy equipment. Administrative Ensure supervisor is in charge of task and approves the tow.
2	Secure area from other vehicles, equipment and persons (Establish a danger zone).	Motion Other traffic and equipment. Nature, Temperature Wet, muddy, icy ground conditions, low visibility. Gravity	Administrative Place Reflective triangles to warn traffic or send additional personnel to flag down traffic on corners or hills. Personal Protective Equipment Use good traction footwear fully

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		Uneven ground and footing.	laced, wear HI-VIS vest or clothing.
3	Check towing equipment (Tow slings, Clevises, hitches, etc.).	Gravity, Motion Pinches, cuts, scrapes.	Administrative Never use damaged components. Discard all cut, frayed, abraded, separated, or generally damaged straps. Personal Protective Equipment Gloves (Appropriate for task).
4	Check vehicle and equipment weights and weight ratings.		
5	As much as possible clear out, mud, sand and snow from tire area in direction of tow.	Gravity, Human Factors Awkward positions, heavy shovel load, poor ground conditions, strike against object.	Engineering Use appropriate shovel. Personal Protective Equipment Wear gloves, proper position.
6	Position tow vehicle in line with stuck vehicle, always use rear of pulling vehicle.	Motion Struck by moving vehicle, traffic and overstress on vehicle components.	Administrative Stay in line of sight and out of area, align vehicle within 10 degrees of a straight line, use larger vehicle as tow vehicle.
7	Layout recovery strap between both vehicles.		
8	Attach recovery strap to both vehicles with proper rated clevis or by wrapping around structural component.	Mechanical Pinch points/Sharp edges, attachment failure.	Engineering Ensure attachments are onto heavy-duty receivers, proper rated tow hooks, or around heavy frame components. Administrative Never attach a strap to vehicle steering, drive train, suspension or body components.
9	(Optional) Place heavy blanket over middle of strap.		
10	Plan and discuss procedure and communications (Signals) between both drivers and spotter if used.	Human Factor Missed communication.	Administrative Clear two-way communication with acknowledgment.

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11	Ensure all bystanders, personnel, vehicles/equipment are clear of area.	Human Factor Unannounced personnel in area.	Administrative Ensure area is secured either using flagging or designated persons to secure area. No Passengers in either truck.
12	Have pulling vehicle slowly remove slack from tow strap.		
13	Once tow strap is tight, both vehicles proceed in direction of pull. (Use 4x4 Low and avoid wheel slippage.) (The strap should stretch several feet which will help free the stuck vehicle.)	Motion Flying objects, moving vehicles, towing equipment failure	Engineering Use proper rated tow strap and connecting devices (clevis, hitch). If available use tire chains for additional traction. Ensure seatbelts are worn by both drivers. Administrative Stay out of line of fire (Clear area – Twice the length of a tow strap. A tow strap is 20'x2=40'). Ensure the strap is not twisted, tangled or knotted.
14	Once stuck vehicle is out and clear, have tow vehicle move to allow slack in strap.	Motion Moving vehicle	Engineering & Administrative Ensure vehicles are fully stopped and in park, watch for traffic.
15	Remove tow equipment and inspect all equipment & vehicles prior to putting away.	Mechanical & Motion Pinch points Damaged equipment (unsafe to drive)	Administrative If damage is suspected, have mechanic verify drivability. Personal Protective Equipment Gloves

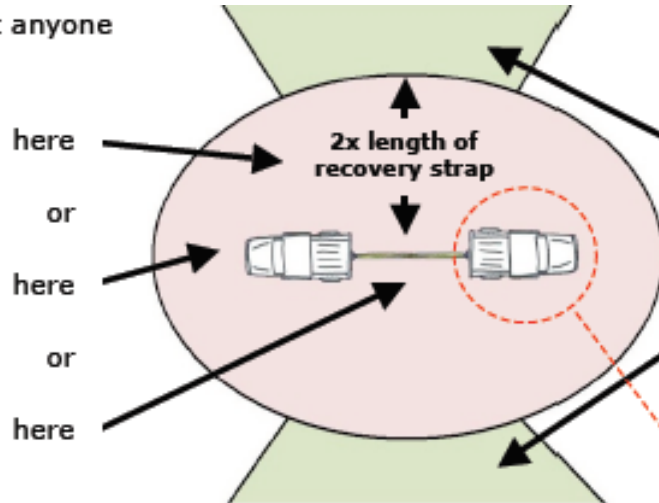
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- Never store strap in direct sunlight, UV light can damage the strap.
- Never pull strap over sharp edges or abrasive surfaces.
- Never use a recovery strap for lifting, hoisting or winching.
- Never use a winch hook as a recovery strap anchor.
- Never expose the strap to acid or temperatures above 180 degrees F.
- Never tie knots in the strap referer to lower picture for proper process.
- If, after several attempts, the vehicle remains stuck, consider pulling from the opposite direction. If severely stuck, it will require a tow truck or larger vehicle.
- Towing of a vehicle for any distance shall be left to a properly equipped tow truck.
- It is important to note that standard manufacturer supplied tow hooks or eyelets are strength rated for the weight of that vehicle alone and are not designed for complex tows that involve situations such as mud or pulling up steep banks.
- Ensure stuck truck is unloaded and any trailer is disconnected prior to tow.

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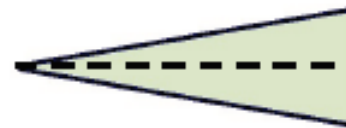
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DO NOT let anyone stand...



Other than the two drivers, everyone is...

Align the vehicles so they are within 10 degrees of a straight line.



ONLY use a recovery strap with proper loops.

Check Minimum Breaking Strength (MBS)—should be 2-3 times stuck vehicle weight.



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DO NOT attach to bumpers, ball hitches, bull bars, or tie down eyes. These can tear free under towing stress.



DO NOT use tow straps, chains, or cables that can become killer metal missiles! DO NOT use a web sling.



ONLY attach recovery strap securely to a load rated component, i.e., loop onto tow hooks, engineered recovery device or on shackle with pin in hitch receiver.

Check Working Load Limit (WLL) of shackle—should exceed recovery strap strength. Frame mounted receiver also needs to be rated to the required weight.



Double length by threading straps through each other's eye. A rolled newspaper stuck between the loops provides a safe means of undoing the knot later.



Gain 50% more length by looping one strap through the eye of another.



Never use a shackle to join two straps—if a strap fails, it becomes a deadly projectile.



The front tow hooks are rated for the GVWR of the truck



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REFERENCES / ADDITIONAL INFORMATION

Enform – Vehicle Recover and Towing Program Development Guideline

Vehicle owner’s manual

Developed by:	1.	Rhys Cooper	2.	Scott Desautels	Date:	February 10/16
	3.	Warren Cooper	4.	Lincoln Carriere		
Reviewed by:	1.	Glen Bauer	2.		Date:	February 29/16
Revised by:	1.	Ryan Obleman	2.		Date:	April 18/18
