



SAFE OPERATING GUIDELINES

JOB TITLE **HAULING EQUIPMENT with TRUCK
and TRAILER COMBINATION**

JOB DESCRIPTION This guideline describes loading, unloading and hauling equipment with a truck and trailer.

JOB HAZARD IDENTIFICATION

Personal Injury

- bumps, bruises, scrapes, burns, crushing, muscle pull/strain, pinch points, slip, trip and fall

Vehicle/Equipment

- equipment accident/incidents, equipment/electric failure, overhead lines, struck-by

Environmental

- visibility, weather, working alone, variable terrain

JOB STEPS / GUIDELINES / HAZARD REVIEW

1. SAFE WORK MANAGEMENT LOGISTICS

(refer to Safe Work Management Logistics)

- **Pre-job planning**
 - Ensure that workers are properly trained, certified and competently supervised.
 - Identify any special hazards and controls.
 - Ensure that over width or over length permits are obtained - if required.
 - Review emergency plan.

- Ensure that you have sufficient resources (*labour, PPE, equipment and materials*) to carry out the task safely.
- **If contracted equipment is involved in this activity**
 - Ensure contractor meets DHT requirements regarding safety certification or is aware of DHT Safety Program.
 - Discuss work plan with contractor.
- **Toolbox Meeting**
 - A pre-job toolbox meeting and documentation is required to ensure that workers understand work assignments, hazards and location of specific work areas (*refer to Safe Work Management Logistics SOG-Toolbox Meeting*).
 - Additional toolbox meetings and documentation will be necessary when hazards, conditions or activities change.

2. CIRCLE CHECK

- Each operator conducts a circle check on equipment being operated to detect equipment deficiencies and ensure that safety related defects and other necessary repairs or deficiencies are corrected prior to utilizing the unit.
- After circle check is completed, fill out circle check documentation and retain in cab and file copy in section office.
- The operator should only perform repairs or adjustments that they can perform competently and have other repairs performed by a qualified/competent person.
- Ensure that over width permits are valid. If over dimension (extra wide, overweight) loads are to be transported, then proper permits must be obtained and restrictions complied with (e.g. pilot vehicles, night-time restrictions).

3. CREW PREPARATION

- Crew obtains, loads and secures all necessary tools, signs, personal gear, PPE and equipment required to do the job.
- Crew mobilizes necessary equipment (refer to Mobilization SOG).
- Crew loads all necessary material required to do the job.
- Operator (and co-worker if available) hook up trailer to Department unit. It is recommended that this operation be performed by two persons (driver and co-worker).
- Only qualified/competent personnel should perform this operation.
- Never attempt to hook/unhook trailer while loading or unloading trailer.
- When working around hitch, care should be taken not to bump head or pinch hands.
- Hardhat and protective hand wear must be worn when working around equipment.

4. TRUCK AND TRAILER COMBINATION MOBILIZATION

- After circle check is completed ensure unnecessary attachments are dismantled (refer to *Attachments Installation and Removal SOP*).
- Ensure all components are working properly before commencing work.
- Attach trailer to dump truck (refer to **backing up, hooking up and towing SOP**), recheck lights and brakes of combination unit.
- Check security of hitch, hydraulic and air lines.
- Check for proper operation of trailer.
- Load and secure tools, chains, boomers and blocking material.
- Extra caution is required when moving through all urban areas.
- When operating a towed unit extra caution is required for turning or backing operations (refer to **backing up** Dump Truck Operation SOP).
- Ensure pup hitch is free of loose debris and screw jacks are lifted and stored correctly for transport.
- If water tank is mounted ensure spray bar and pump is secure.
- If leaving the unit at the work site overnight, park unit in a secure, level location, apply brakes, and block wheels.

- At end of day ensure that air system is drained.

5. SET-UP WORKZONE SIGNING – (As required by TCDM Matrix)

- Crew installs the work zone signs necessary in accordance with the planned traffic accommodation plan (refer to Work Zone Signing SOG).

6. PRE - LOADING

- Operator moves truck trailer combination to loading area and/or backs to loading ramp.
- Recommended that this operation should be performed by two people.
- Ensure backup alarm in operation.
- Ensure area is clear of people, and obstructions.
- Ensure that circle check for the unit being loaded has been completed if applicable.
- Follow proper start up techniques for the particular unit.
- Drive, push or pull unit to be transported to trailer or loading area.
- Employee prepares trailer for loading operation by lowering beaver tails, tilting bed, unloading chains and tighteners/boomers.

7. LOADING PREPARATION

- With the assistance of a guide the unit is driven/backed/pushed/ pulled onto the trailer.
- Exercise care due to potential tipping or rollover on slippery surfaces or spinning tires during loading.
- Guide must be in view of the operator at all times and use predetermined method of communication (e.g. hand signals, verbal, horn etc.).
- No one should be on the trailer during loading operation. All personnel must stay a safe distance from the trailer.
- Operator must have seat belts on if equipped.

- While maintaining a slow, steady speed the operator drives/backs/pushes/pulls the unit into position on the trailer. Ensure that proper weight distribution is on hitch and axles.
- When loading onto a tilt bed trailer, the loaded unit should be positioned slowly so that descent of the tilt bed is controlled.
- For units without brakes, ensure wheels are properly blocked (with connecting chains to prevent loss of chock blocks) prior to disconnecting unit from assisting unit. Unsecured blocks must be removed from trailer deck prior to transporting.
- Operator applies park brake, switches off loaded unit, exits and descends from the trailer.
- Operator secures loaded unit with chains and tighteners using the appropriate number and crossing technique. For non-powered units, apply cross chains to rear loaded unit and disconnect assisting unit.
- Refer to trailer manual for correct securing and binding of loads and to a guide to the Security of Loads Regulations in Saskatchewan. Lock the boomer handles with chain or wire. Operator must be properly trained and certified to perform this load securing function.
- When loading an articulated unit, ensure that articulation-locking bar is engaged before the unit is chained/secured to the trailer.
- Operator must check the security of the load and ensure that beaver tails and tilt bed lock is engaged before moving unit.
- If the loaded unit is equipped with a turbo charger, the exhaust pipe must be covered to prevent inlet of air.
- Ensure that any over width load protrusions are properly identified.
- It is not recommended that units be transported with engine running; however if a unit must be transported with the engine running, then the neutral safety lock and park brake must be engaged. Operator must regularly check loaded unit.

8. HAULING EQUIPMENT

- Operator should do a walk around of the loaded truck trailer combination to ensure that brakes, tires, lights, glad hand connections, airlines, electrical lines, pintle hitches etc are all in proper working condition.
- Operator enters the truck trailer unit and hauls the loaded equipment to destination.
- Turn on rotating beacon if load is over width or over height.
- It is recommended that after traveling 5 km and thereafter every 100 km, operator stops in a safe place to check the security of the load. Re-tighten chains and boomers.
- Be aware of bridge and structure widths, heights, and weights along intended route.
- Operator should adjust driving techniques to account for loaded truck trailer combination steering and braking control.

9. TURNING AROUND WITH A COMBINATION UNIT

- Turn around at the next forward approach by assessing the situation and use the safest method possible (refer to SGI's Professional Driver's Handbook).
 - **2 Point Method**
 - Where it is necessary to turn a combination unit around on a highway where there is no hard surfaced intersection, you may use the following procedure. Use a guide whenever possible because you will be backing to your blind side.
 - Well before the place where you wish to turn around, position your vehicle in the right hand lane as close to the edge of the road as possible.
 - Proceed until the rear of the trailer is at least 9 m (30 ft) past the intersection and stop. Turn on four-way flashers.
 - Check for traffic.

- Begin backing up slowly. Start turning steering wheel to the left approximately 9 m (30 ft) before the trailer reaches the approach. Continue backing manoeuvre until the unit is positioned in a straight line on the approach and stop. Turn off four-way flashers.
 - Check for traffic.
 - Signal for a left turn, check for traffic again and proceed to make a left turn onto the highway.
- **3 point method**
 - Turning around with a combination unit on a two lane highway.
 - Use a guide whenever possible.
 - Choose an intersection where the intersection highway is built up with a solid base and wide shoulders. Ensure that there is unobstructed visibility in all directions.
 - Traffic permitting – complete a left turn and stop you unit well off the highway.
 - Check for traffic – when all four directions are clear, proceed to back straight across the highway until you are again clear and well off the main highway.
 - Traffic permitting. Complete a left turn onto the main highway.

10. DESTINATION UNLOADING PROCEDURES

- Upon arrival at destination, park in a level location that provides sufficient room for safe unloading of the transported unit.
- When backing up to a unloading ramp, ensure that guide is in view of the operator at all times and use predetermined hand signals to guide the operator.
- No one should be on the trailer during unloading operation.

- All personnel must stay sufficiently clear of trailer so that in the event of a rollover, no one is crushed.
- The operator and/or co-worker prepare trailer for unloading operation ie. lowering beaver tails and unlocking tilt bed.
- Remove articulation-locking device if required.
- Unplug turbo - if required.
- If transported unit must be pulled off trailer, hook up assisting unit prior to removal of chains and boomers and blocks.
- Remove chains and boomers and store in toolbox and secure.
- For powered units, ascend trailer and enter unit to be unloaded.
- Slow, steady speed when unloading.
- Operator drives/backs unit off trailer and parks in desired location or pulls unit off trailer with assisting unit.
- Lock tilt bed and raise beaver tails.
- Operator must complete a Post trip inspection to identify any repairs or damage needing attention (refer to trailer towing manual {1996}).

REQUIRED PERSONAL PROTECTIVE EQUIPMENT

Note: refer to Safety Manual for mandatory use of PPE

- approved hard hat, approved footwear, high visibility apparel, coveralls, approved eye protection, protective hand wear

RECOMMENDED TOOLS / EQUIPMENT

Tools

- operator's hand tools, shovel, broom

Units

- dump truck/light truck, trailers

Equipment

- first aid kit, emergency road side kit, approved ropes/chains/cables/slings/boomers, communication equipment, documentation pouch, wheel blocks/chocks

- over width flags/signs/rotary lights – if required

RELATED SAFE OPERATING PRACTICES / MANUALS

(refer to forward statement at the beginning of the Table of Contents)

S.O.P.s

- Mobilization of Tractors and Light Trucks, Backing Up, Entering and Exiting of Vehicles, Equipment Breakdown, Fuelling Operations, Safe Use of Hand Tools, Scale Site Entering and Exiting, Servicing Equipment, Work Zone Signing, Safe Work Management Logistics

Manuals

- SHT Trailer Towing manual (1996), Sask. Security of Loads Regulations, Safety manual, Equipment Certification Manuals, Trailer Manual, Manufacturer's Operating Manuals

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