North American Sled Operators
2026
Rule Book

The following rules and/or recommended practices apply to traveling weight box type machine only

SECTION 1
MEMBERSHIP

1.1 New membership fees will be $500 for class 1 thru 4 sleds and $1,000.00 for class 5 thru 8 sleds. Fees are payable over two years with first half of fee due upon application for membership. Second half of fee due upon start of second year of membership.

1.2 Members without an active sled will be assessed an annual membership maintenance fee of $50.

1.3 If membership is not maintained, the new member fee will be assessed.

1.4 As per By Laws: Article II Section 4. Termination of Membership. The board of directors by affirmative vote of two-thirds of all of the members of the board may suspend or expel a member for cause after an appropriate hearing, and may, by a majority vote of those present at any regularly constituted meeting, terminate the membership of any member who becomes ineligible for membership, or suspend or expel any member who shall be in default in the payment of dues for the period fixed in Article XI of these by-laws.

1.5 As per By Laws: Article XI Section 3 Default or termination of membership. When any member of any class shall be in default in the payment of dues for a period of six months from the beginning of the period for which such dues became payable, his membership may thereupon be terminated by the board of directors in the manner provided in Article XI of these by-laws. (Payment must be made by May 1st)

1.6 As per By Laws: Article II Section 7 Transfer of Membership. Membership in this corporation is not transferable or assignable.

SECTION 2
LICENSING PROCEDURES

2.1 All insurance and license fees are due yearly. Insurance and license on any weight transfer machine is only valid when all the requirements and procedures are completed and current year license with number is physically attached to weight transfer machine.

2.2 All weight transfer machines must be inspected yearly. NASOA allows a 90-day grace period from prior year's inspection to fit both yours and the inspector's schedules for yearly inspection.

2.3 After inspection, correct all areas noted and starred (*). Notify NASOA secretary and inspector by signed letter all areas have been corrected. Make sure you have paid yearly license fee to NASOA secretary. After which the secretary will forward you a copy of your license.

2.4 Any machine owner notifying NASOA that all changes and/or corrections have been made, when in fact they have not, will be subject to a 1-year suspension of license and up to a $500 reinstatement charge

2.5 License fees and insurance fees are due on a calendar year basis. Your re-inspection date is your own and may not coincide with calendar year.

2.6 The NASOA inspector has the right to refuse approval for machine license and/or suspend a license with just cause. Machine owner may correct deficiencies and/or appeal to NASOA for a hearing decision from the NASOA board. If continual breakdown occurs on a machine, it will be re-inspected at the discretion of the NASOA Board. Corrections will be made or license shall be revoked. If for any reason machine must be re-inspected by direction of NASOA, all cost incurred will be at the machine owner's expense.

SECTION 3
INSPECTION FEES and INSURANCE

3.1 INSPECTION FEES are as follows:

$500.00 if paid in person or postmarked on or before February 1 of current year.
$600.00 if paid in person or postmarked from February 2 thru or on March 1 of current year.
$650.00 if paid in person or postmarked from March 2 thru or on April 1 of current year
$700.00 if paid in person or postmarked April 2 or later of current year

3.1A Default of inspection fee payment. See Rule 1.5

3.2 NASOA licensing is dependent upon NASOA inspection.

3.3 Insurance coverage through NASOA is dependent upon NASOA licensing. All WPI/ NASOA combination or NASOA only sleds, must be members in good standing and all fees must be paid for appropriate organizations before an insurance certificate will be issued.

3.4 All Inspection Fees and Insurance premiums must be paid before sled license will be issued.

3.4A No sled inspection/license sticker will be issued for any sleds that do not purchase NASOA/K&K insurance until the following conditions are met.

3.4A1 A copy of the sled owners liability insurance certificate from another company must be on file with the secretary.

3.4A1.1 Insurance certificate must list North American Sled Operators Association (NASOA) as additional insured.

3.4B Failure to meet these conditions by May 1st of said year, or members first event of said year, whichever is earlier, will result in revocation of NASOA membership.

3.4B1 Once membership has been revoked, a new initiation fee and inspection fee per sled will be required to remain/renew a membership with NASOA.

3.4B2 Initiation fee and Inspection fee for a revoked membership is to be paid in full. Revoked member must then be in good standing before a sled license and an insurance certificate will be issued.

3.5 Any sled pulling a vehicle that is classified above what the sled is classified for does so without insurance coverage.

SECTION 4
VOTING

4.1 Voting members of NASOA will be limited to current licensed sleds.

4.2 One vote per sled. All sleds will have the right to vote by proxy.

SECTION 5
GENERAL

5.1 All new rule changes will go into effect January 1st of each year unless safety forces the board to implement immediately.

5.2 All sled operators must be at least 16 years of age with parental consent. All crew members must be at least 14 years of age with parental consent.

5.3 The sled owner is responsible for adequately training new sled operators. The sled board and sled inspectors can offer training suggestions.

5.4 A qualified operator must be in control of the weight transfer machine at all times.

5.5 All operators must be in a securely mounted seat.

5.6 All operator compartments must be located on the top, rear of transfer (except pre-approved sleds can have operator forward). It is highly recommended that all sled operators wear a seatbelt while seated in the operator compartment.

5.7 No riders are permitted in any part of the weight transfer machine at anytime, unless machine has more than one seat in operator compartment. Then, any rider must ride for the duration of class being pulled.

5.8 All controls should be convenient to the operator.

5.9 Minimum of two (2) fire extinguishers, one (1) on each side. These must be a minimum of 2-½ pound ABC type. 5 pound and larger ABC type, or Stop Fyre type is recommend. Dust covers for all fire extinguishers are recommended Fire extinguishers must be in working condition.

5.10 Non self propelled weight transfer machines must have tow back device.

5.11 A red light must be clearly visible to track official above pulling vehicle, 4-inch minimum diameter or equivalent, either flashing or revolving, to be wired so red light appears when any brake is activated. Any time the red light appears the green light must go out.

Must be a non-see through light.

5.12 A green or yellow light must be clearly visible to track officials above pulling vehicle, 4-inch minimum diameter or equivalent. To be wired so green or yellow light appears only when both the weight transfer machine and operator are ready for pulling attempt. (track maintenance equipment out of harms way, box drive mechanism and clutch engagement, brakes released, operator in seat) The green or yellow light must remain on when box is fully forward, not to go red. Must be a non-see through light.

5.13 Downhill weight transfer machines can use friction limiting device (clutch) if drilled and tie wrapped.

5.14 When a weight transfer machine is at the starting line and the operator is not seated, the clutch on the driving mechanism and ground wheel brakes must be applied.

5.15 Should loss of air occur, box clutch must stay locked in and all maxi brake systems must activate.

5.15A All air applied box clutches must have air supply with check valve to prevent disengagement of box clutch should air pressure be lost.

5.16 All tires on all sizes of the sleds should be as large as possible so weight per square inch on ground contact patch can be the least possible. Dual wheels or super singles are highly recommended for sleds.

5.17 It is highly recommended that all weight transfer machines be tested before the start of the event.

5.18 Workable windshield required.

5.19 All sleds should use tandem axles, but this is not mandatory.

5.20 All weight transfer machines must have emergency pan drop with option of emergency push down pre box trip (either air or hydraulic). Mechanical push down not to be affected. If emergency trip is used, red light must come on.

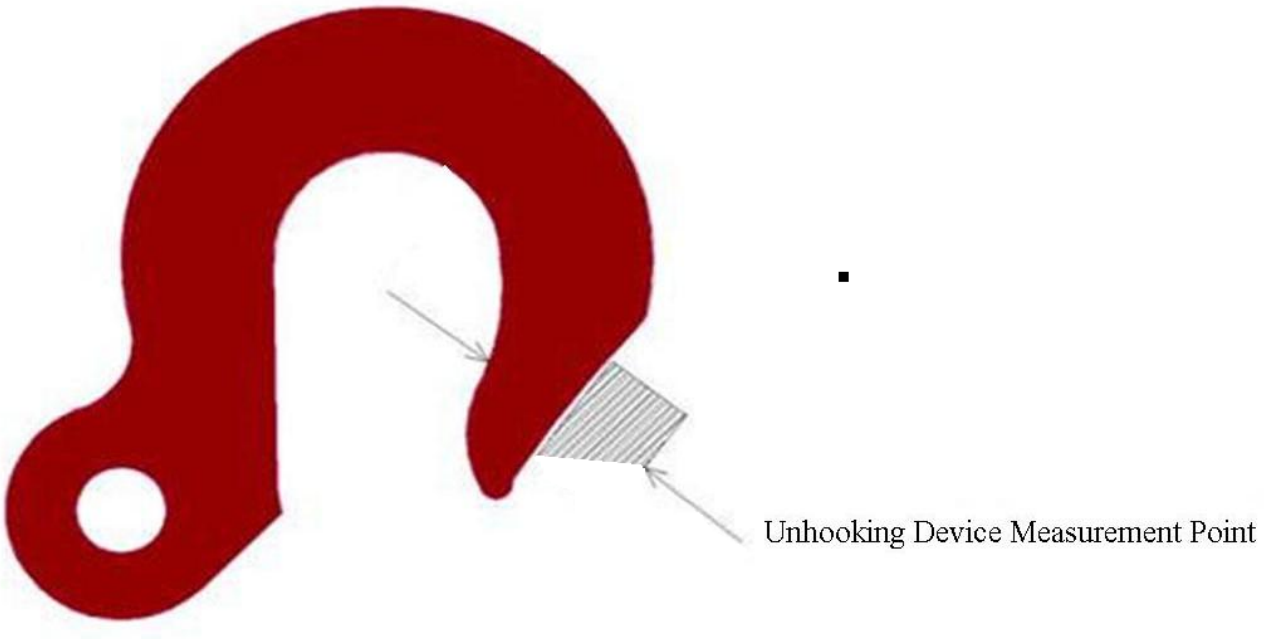
5.21 All weight transfer machines using some type of push down device on pan rear and underside of sled rail at far end of track will be limited as to how far it can push rear of pan (or lift frame rails).

5.22 The device used to activate push down system must be located within the last 24 inches of box travel.

5.23 All sleds must have a pull chain hook equipped with an anti-unhooking device.

5.23A Special anti-unhooking device at tip of hook on Herc Alloy 100 hooks to be measured as per Diagram 5.23A.1

5.23A.1



5.23B Class 1 and 2 sled pull chain hooks must use a fully enclosed mouse trap style or locking style safety hook. Refer to rule 14.2 for chain specs.

5.23C Class 3, 4 and 5 sled pull chain hooks must use the following:

5.23C1 Minis – Must use a fully enclosed mouse trap style or locking style safety hook . Refer to rule 15.2A and 16.2A for chain specs.

5.23C2 Trucks and Tractors – Must use a fully enclosed mouse trap style or locking style safety hook. Also allowed is a regular sling style hook with a special anti-unhooking device on them ½ inch thick, 3 ⅜ to 3 ½ inches high and 2 inches long. Refer to rule 15.2B and 16.2B for chain specs.

5.23D Class 6 and 7 sled pull chain hooks must have a special anti-unhooking device on them ½ inch thick, 3 ⅜ to 3 ½ high and 2 inch long. Also allowed is a fully enclosed mouse trap style or locking style safety hook. Refer to rule 17.2 and 18.2 for chain specs.

5.23E Class 8 sled pull chain hooks must have a special anti-unhooking device on them ½ inch thick, 3 ⅜ to 3 ½ inches high and 2 inches long. Also allowed is a fully enclosed mouse trap style or locking style safety hook. Refer to rule 19.2 for chain specs.

5.23F All NTPA certified sleds with Anti Unhooking device at tip of hook will be measured at no more than 3/8 inch smaller than the pulling vehicle drawbar hole.

5.23G A triangle shaped special anti-unhooking device will be

acceptable for all classes that require this device.

5.23G1 The highest point of said device must be facing away from the tip of the hook.

5.23G2 All other dimensions to remain the same as per the requirements for each class of sled**.**

5.24 **Sled Owner/Operator/Crew conduct:**

5.24A The use of alcohol or any other intoxicating substance is strictly prohibited for any Sled owner/ operator or crew member**.** Zero Tolerance.

5.24A1 First offense loss of license and insurance for one year and ten days.

5.24A2 A reinstatement fee of $1000.00 will be required.

5.24A3 A probation period of one year and ten days will be instated. Any Offense while under probation will result in lifetime ban.

5.24B Any Sled Owner/Operator or member of his crew who exhibits unprofessional and/or unsportsmanlike conduct including abusive language and/or physical action toward the promoter, event official, or spectator and/or deliberate delay of event, will be just cause for disciplinary action from the NASOA board.

5.24B1 First offense $500.00 fine.

5.24B2 Second offense $1000.00 fine.

5.24B3 Third offense loss of license.

5.24C Any unsafe operation of the sled either on or off the track will be just cause for disciplinary action from the NASOA board.

5.24C1 No cell phone use is permitted while the sled is in motion.

5.24C1.1 First offense $500.00 fine.

5.24C1.2 Second offense $1000.00 fine.

5.24C1.3 Third offense loss of license.

5.24C2 The use of hand held or remotely operated video equipment is not permitted by the operator.

5.24C2.1 First offense $500.00 fine.

5.24C2.2 Second offense $1000.00 fine.

5.24C2.3 Third offense loss of license

5.24D Disciplinary action from the NASOA board may be or include probation, suspensions or fines. (Action shall be determined by Appeals Board)

5.24D1 The Board reserves the right for egregious violations to move directly to loss of license.

5.25 **Sled Caused Accidents**

5.25A Sled Operator will be required to file an incident report with our insurer after an accident involving:

5.25A1 Injury to the sled operator, competitor, track personnel, or spectators.

5.25A2 Damage to the completion vehicle or property damage.

5.25A3 If incident report is not filed within 10 business days a $500 fine will be assessed.

5.25B In the event of a sled accident resulting in major damage to the sled.

5.25B1 The sled will remain out of service until the following conditions are met:

5.25B1.1 Accident has been investigated by an NASOA approved inspector

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5.25B1.2 Sled has been repaired.

5.25B1.3 A re-inspection of the sled has been completed by an NASOA approved inspector.

5.25B2 All costs for sled re-inspection incurred by the sled inspector are required to be paid by the sled owner.

5.26 NASOA recommends that for safety reasons, all semi hitches have a drawbar height of no more than 18 inches.

SECTION 6
RAIL

6.1 Rail strength must be adequate enough so that there are no distortions at weight transfer machines heaviest weight and stress load.

6.2 Rail length should be enough so the box can go past fifth wheel pin in front and behind rear axle.

The further the box can go past either fifth wheel pin or behind rear axles, the more options there are available to the weight transfer machine operator.

6.3 Rails must have two sets of stops, independent of each other, on the front of rails. They must also be at adequate height for the application, each strong enough to stop a fully loaded, freewheeling box at not less than 10 mph.

6.4 Stop on rear of rails are to be strong enough to stop a fully loaded box-free-wheeling going backwards.

SECTION 7
AXLES

7.1 Axles should have the ability to be raised or lowered in relation to the rails to be able to lighten or make the pan heavier according to the class being pulled. All walking axles, and/or independently controlled by hydraulic or air bag suspension devices axles, are to be held or mechanically locked in that position for duration of that class.

7.2 A weight transfer machines desiring to release (raise) one axle while traveling down the track must adhere to the following criteria: one axle must remain in that fixed position. If the drive axle (box drive) is to be released (raised), the exhausting trigger on either air or hydraulic mechanism is to be controlled by box travel on rail for all contestants. Axles being so wheels can never slip or skid.

This down pressure will carry from sled to sled because of different rail angles. This axle must be recycled for next attempt so axle is the exact same distance from rail for all contestants at the starting line. If axle is to be released is not a drive axle, it must still be released by box travel, but can be completely lifted off the ground if so desired. Axle must be recalled to exactly the same distance from rail for all attempts in given class.

7.3 All weight transfer machines that have capability to change axle pivot will have drive axle locked in vertical position for entire class being pulled. Rear axles drive sleds must lift the front axle off the ground prior to 1/3 of the box travel.

SECTION 8
BRAKES

8.1 All weight transfer machines must have brakes that pass D.O.T inspection.

8.2 All ground contact wheels at the starting line must have working brakes installed with brakes being strong enough to lock all wheels when unit is fully loaded.

8.3 All weight transfer machines using air brakes must have maxi brakes on drive axles.

8.4 All sleds must be equipped with a braking system on the box itself, capable of stopping box travel at maximum box weight.

8.5 Box drive train must have a brake system built in it somewhere. (Preferably on the box chain shafts at either end of the weight transfer machine)

8.6 Box brakes utilizing idler chains with their own shafts, bearings, and brakes can be used by Class 5 sleds or smaller by January 1, 2015.

SECTION 9
KILL SWITCHES

9.1 Kill switch cable required from front of WTM mainframe to competition vehicle kill switch. Kill switch cable must be operable at any time a competition vehicle is connected by chain to weight transfer machine.

9.2 Cable to be a minimum 1/8" diameter, plastic coated steel cable. Kill switch cable must be capable of minimum 32 pounds of tension (pull). Kill cable must be long enough to reach minimum 6 inches beyond point of hook when chain is hooked into drawbar and tight.

9.3 A solid latch with a minimum 3/16-inch cross-section thickness at any point should be used to connect cable to kill switch ring. Latch must be attached to cable at least two (2) cable clamps.

9.4 Kill switch cable must be connected to an electric motor or winch type device mounted at front of weight transfer machine main frame that actuates quick and positive. Device must be capable of adjusting cable length to limit excessive slack in kill switch cable. Control of this device must be from operator's station. Manual operation of the kill switch cable by operator is not allowed. All kill switch devices must be able to retract cable past buckboard of pan.

SECTION 10
PANS

10.1 All pans on all weight transfer machines are to be rounded or beveled on front-bottom of the pan. This is to prevent tire climbing and to better feed dirt under the pan, not just push dirt in front of the pan.

10.2 All pans must be equipped with a buckboard 36 inches or higher on class 6, 7 & 8 sleds. On class 1 thru 5 sleds the buckboard must be 24 inches or higher. A horizontal 4-inch belt flap at top of buckboard required. Buckboard must have adequate opening in center for hooking and unhooking all sleds.

10.3 All pans must be equipped with dirt shields (mud flaps) attached near the front of the pan. Dirt shields must be 1-inch thick rubber or framed with steel if less than 1-inch thick. They cannot be further back than 12 inches from the front of the pan, extending outward at a 45-degree angle. They should be forward to an overall width of 13 feet on class 6,7 & 8 and 10 feet on class 1 thru 5 measured from end of flap on one side to end of flap on the other side. Dirt shields must stay in contact with the ground to keep dirt from escaping under shield.

10.4 Narrower dirt shields can be used indoors only when room demands.

10.5 The point of hook of the weight transfer machine frame to the pan or skid (fifth wheel pin and plate) will be center to rear of center or center of pan. It cannot be in front half of pan. Pin location should not be too far back in pan. Fifth wheel plate and pin must be taken apart and visually inspected yearly. If there is too much horizontal or vertical slack in fifth wheel pin or latch, they must be replaced, NEVER WELDED.

10.5A Any 5th wheel that is not used to uncouple pan for transport must be reversed.

10.5B Any 5th wheel mounted forward to uncouple pan for transport must use locking bar type 5th wheel.

10.5C Any sled built after January 1, 2013 may not use a 5th wheel on the pan.

10.6 The pan on all sleds must be constructed rigidly. Flexing in any direction is prohibited.

10.7 Dimension: Pan dimensions on all weight transfer machines should be approximately the length and width dimensions of any vehicle that pulls the machine.

10.8 The pan on all weight transfer machines may be able to pivot from side to side.

10.9 Pan drawbar must be as strong as drawbars on vehicles to pull. Example: Class 8 sled minimum of three square inches of steel at all points including any pinhole with pin removed.

10.10 Sled drawbar (pull) chain and hook shall consist of a single chain and a single hook. The chain will be attached to a drawbar that is centered in the front of the pan. The drawbar must be a minimum of one inch above ground and a maximum of two inches above ground on all sleds.

10.11 Chain length is measured from center of sled drawbar pinhole to inside of hook when tight in a vehicle drawbar.

10.12 On non-sanctioned classes, chain length can be as needed as long as it meets chain load specifications for sled classification. See each classification for spec.

10.12A All chain extensions must have a positive attachment to the main hook chain or the pan.
Examples: (Hammerlock or Safety Hook)

10.13 On sleds required to have a second chain it will be ¾ inch grade 8 chain, and be attached 10 inches above the main hook point. Secondary chain must exceed main hook chain by a minimum of 6 inches and a maximum of 10 inches.

10.14 Air: Any air hold system must operate at full air pressure of total machine triggering device to be same as hydraulic device. All pan hold up devices with electric or air must be held up with electric power (or air) where the loss of either will let the pan drop.

10.15 Bars are allowed under pan, but only in rear half of pan. No bars are to be used under front half of pan.

10.16 All pans must be designed to maintain ground attitude to prevent bouncing.

10.17 Any weight transfer machine using a rear pan lift device at starting line must observe the following:

10.17A Mechanical: single arm (mouse trap) multiple arms progressive (ladder) pan will always drop right and fair. Can be engine driven if not used as push down.

10.17B Hydraulic: can be 12-volt hydraulic pump, engine driven or ground driven constant displacement pump.

10.17C Pan Drop trip must be located outside of the cab and on the box rail. Trip must be activated by box travel.

10.18 All pans shall be able to pivot up and down. Any ground attitude device must not limit the pan's pivot ability or steer ability after pan holdup device has been released.

10.19 All pans must have the ability to mount a prism directly over the chain hook point for events requiring this type of laser measurement.

SECTION 11
BOX DRIVE TRAIN

11.1 The weight transfer machine must be positive ground drive (on front axle of tandems on new or future sleds - January 1, 2005) mechanism through shafts, gears, chains, sprockets, and gear boxes. The use of over- running, sprag-dog clutches is not allowed anywhere in the drive train. Any clutch on any weight transfer machine that is not normally an engaged clutch (spring loaded or over center) must be air or air over hydraulic engaged. Weight transfer machines should always use normally engaged or over center clutch. Weight transfer machines should always be constructed using shaft and gearbox drives to eliminate slack in chain and sprockets.

11.2 Cable drive boxes are limited to Class 4 and below. Cable drive sled will be limited to 7 mph. weight transfer machines built after January 1, 2005 must be constructed using shaft, gear box and chain and sprocket box drive lines.

11.3 Box Transmission gear change must not be possible from a seated position in the cab. Recommended that gear changes be done from outside of the cab.

11.3A Class 1 and 2 Garden tractor sleds may change gears from a seated position as required, but levers must be located in plain view of all participants.

SECTION12
BOX AND WEIGHTS

12.1 The size and shape of box and its weights will determine all areas lengths and pivot points.

12.2 All weight boxes on all weight transfer machines should be as wide as the tire width of the weight transfer machine in order to gain the maximum rails. This means weights are to be loaded vertical, crossways, containerized and concentrated. All weight transfer machine weights must be a minimum of 300 lbs per cubic foot or weight transfer machine's performance will be severely limited, which will limit weight transfer machine's license. Here is a list of approximate weights of different materials used for weights: solid steel 480 per cubic foot, cast iron 450 per cubic foot, lead 706 per cubic foot, cement 150 per cubic foot, water at 39.1 degrees, 62.5 per cubic foot.

12.2A All lead weights must me encased.

12.3 All weights must be secured from movement in any direction. Weights must be either compartmentalized or pinned.

12.4 On all weight transfer machines all boxes must be welded to its wheel or trolley system so trolley box cannot jump off rails.

12.5 Weight transfer machines built after January 1, 2005 must be built with the wheels between top and bottom rail flanges inside or outside of rails.

12.6 If box and trolley ride on top of rails, it must have two hold downs one on each rail fastened to the box for the full length of the box. These hold downs must be constructed of material equal to or greater than flange thickness. Sleds using hold down clips must have two (2) gussets per side equal to or greater than the hold down thickness and must be welded. So trolley and box cannot jump off rails.

12.7 Maximum clearance between hold-downs of top trolley system and rail flanges is ½ inch.

SECTION 13
CLASSIFICATIONS

All transfer machines will be inspected and licensed not only for legality, but also for machines abilities, and crew's willingness to perform. After inspection weight transfer machines will be given one of the eight (8) classifications below.

1.) Garden tractors

2.) N/A Mini

3.) Blown mini & antique tractors

4.) Farm up to 10,000
Street Stock Gas FWD Pick-Up
Street Stock Diesel FWD Pick-Up

5.) Farm stock up to 20,000
Pro Farm Tractors up to 6,500
Single Engine N/A Economy Modified Tractors
Pro Stock FWD Pick-up with Street Tires
Chipped Diesel Pick-Up with Street Tires

6.) Super Farm Tractors
Street Licensed Stock Semis
Super Stock FWD
TWD Trucks N/A
Open Diesel FWD Pick-Up
Blown FWD Pick-Up

Single Engine Blown Modified Tractors
Multiple Two & Three N/A Modified Tractors
Pro Farm Tractors
Pro Stock FWD Pick-up
Light Limited Pro-Stock Tractors
Pro Diesel FWD Pick-Up

6.) 6R – Restricted
Shall be restricted from pulling competition classes of sled class 6 as follows.
Super Farm Tractors
Street Licensed Stock Semis
Open Diesel FWD Pick-Up
Pro Diesel FWD Pick-Up
Pro Farm Tractors
Light Limited Pro Stock Tractors

7.) Multiple Engine Aircraft
Industrial, & Marine Modified Tractors
Two & Three Engine Modified Tractors
Super Stock Tractors
TWD Trucks Blown

8.) Unlimited Modified Tractors
Four Engine Modified Tractors
Super Semis
Pro Stock Semis with Single Turbo

Pro Stock Tractors

A weight transfer machine will be licensed only for classes and levels of competition it can satisfactory perform.

SECTION14
GENERAL GUIDELINES FOR CLASS 1 & 2 SLEDS

14.1 Weight transfer machines must be capable to transferring 300% of class weight.

14.2 Hook chain and all attachments must be minimum 3/8-inch (or greater) grade 80 (or greater) chain with a swivel on the hook end. Chain to 36 inches (plus or minus ½ inch) long (including hook). Hook used must meet or exceed chain rated capacity and be able to fit through a 1 ¾ inch minimum drawbar opening. Refer to rule 5.23B for pull chain hook anti-unhooking spec.

14.3 Must have steer chains from pan and buckboard to pull chain, 9 inches (plus or minus ½ inch) on each side of pan draw point. Steer chains to tie into main pull chain 13 ½ inches -14 ½ inches ahead of the first pivot point. These 5/16 inch grade 8 (or greater) chains are to securely clamped or bolted to main chain (not welded) Steer chains should pull taunt when competition vehicle has veered approximately 15 degrees from in-line relation to sled.

14.4 Kingpin for garden weight transfer machines must be 2-inch minimum kingpin. No trailer balls. Side pin size 1-inch minimum with minimum two shear points per side.

14.5 Garden tractor sled may have pans that swivel 0 to 10 degrees.

14.6 Brake controls do not need to be air or air-over hydraulic, but must be hydraulic and be positive type (like a park over center or ratcheting type emergency brake)

14.7 Box Drive chain

14.7A Box Drive chain must be a minimum of size 60.

14.7B Box drive chain must meet ASME/ANSI B29.1 Standards.

14.7C Box drive chain must have a minimum tensile strength of 8500 lbs.

14.7D American Made or American Assembled is preferred.

14.7E Chain must be attached to box with adequate attachments.

14.8 reserved

14.9 reserved

14.10 reserved

14.11 reserved

14.12 reserved

14.13 reserved

14.14 reserved

SECTION 15
GENERAL GUIDELINGS FOR CLASS 3 & 4 SLEDS

15.1 Must be able to transfer 300% of class weight being pulled.

15.2 Hook Chain

15.2A MINI'S - Hook chain and all attachments must be minimum ½ inch grade 80 length to be 36in.plus or minus ½ inch with all hooks, connectors & chain. Refer to rule 5.23C.1 for pull chain hook anti-unhooking spec.

15.2B Tractors and Trucks - Hook chain and all attachments must be minimum ¾ inch grade 80 length to be 46 inches plus or minus ½ inch with all hooks, connectors & chain. Refer to rule 5.23C.2 for pull chain hook anti-unhooking spec.

15.3 Chains attached to pan and buckboard to be 9 inches (plus or minus ¾ inch) on each side of pan drawbar. Chain to tie into main pull chain 13 ½ inches - 14 ½ inches ahead of first pivot point

(pin or hammer link). Clamp to or bolt through main chain. Do no heat or weld to or on main chain. Steer chains to be 3/8-inch grade 8 chains (or next size larger) for normal duty chain. When main pull chain extended forward tight and straight ahead, both steer chains should be snug (not loose or not tight).

15.4 King pin must be minimum of 2 inches, no trailer balls, side pins 1 ¼ inch minimum with 2 shear points per side.

15.5 Pan may pivot 0 to 10 degrees.

15.6 Brakes

15.6A Brake controls do not need to be air or air-over hydraulic, but must be hydraulic and be positive type (like a park over center or ratcheting type emergency brake)

15.6B Drive train brakes must be a positive type so when activated brakes will stay in that position by itself, until manually released. The drive system brake must be strong enough on weight transfer machine to stop fully loaded box in a runaway situation

15.7 Box Drive chain

15.7A Box Drive chain must be a minimum size of two single 80H or one double 80H.

15.7B Box drive chain must meet ASME/ANSI B29.1 Standards.

15.7C Box drive chain must have a minimum tensile strength of 14,500 lbs single or 29,000 lbs double.

15.7D American Made or American Assembled is preferred.

15.7E Chain must be attached to box with adequate attachments.

15.8 Pan drawbar minimum 1-inch x 2-inch steel with all pins minimum of 7/8 inch.

15.9 reserved

15.10 reserved

15.11 reserved

15.12 reserved

15.13 reserved

15.14 reserved

SECTION 16
GENERAL GUIDELINES FOR CLASS 5 SLEDS

16.1 Must be able to transfer 400% of class weight being pulled.

16.2 Hook Chain

16.2A MINI'S - Hook chain and all attachments must be minimum ½ inch grade 80 length to be 36in.plus or minus ½ inch with all hooks, connectors & chain. Refer to rule 5.23C1 for pull chain hook anti-unhooking spec.

16.2B Tractors and Trucks - Hook chain and all attachments must be minimum ¾ inch grade 80 length to be 46 inches plus or minus ½ inch with all hooks, connectors & chain. Refer to rule 5.23C2 for pull chain hook anti-unhooking spec.

16.3 Chains attached to pan and buckboard to be 9 inches (plus or minus ¾ inch) on each side of pan drawbar. Chain to tie into main pull chain 13 ½ inches - 14 ½ inches ahead of first pivot point (pin or hammer link). Clamp to or bolt through main chain. Do no heat or weld to or on main chain. Steer chains to be 3/8-inch grade 8 chains (or next size larger) for normal duty chain. When main pull chain extended forward tight and straight ahead, both steer chains should be snug (not loose or not tight).

16.4 reserved

16.5 Pan can pivot 0 to 10 degrees.

16.6 Drive train brakes must be a positive type so when activated brakes will stay in that position by itself, until manually released. The drive system brake must be strong enough on weight transfer machine to stop fully loaded box in a runaway situation

16.7 Box Drive chain

16.7A Box Drive chain must be a minimum size of two single 80H or one double 80H.

16.7B Box drive chain must meet ASME/ANSI B29.1 Standards.

16.7C Box drive chain must have a minimum tensile strength of 14,500 lbs single or 29,000 lbs double.

16.7D American Made or American Assembled is preferred.

16.7E Chain must be attached to box with adequate attachments.

16.8 reserved

16.9 reserved

16.10 reserved

16.11 reserved

16.12 reserved

16.13 reserved

16.14 reserved

SECTION 17
GENERAL GUIDELINGS FOR CLASS 6 SLEDS

17.1 Must be able to transfer 400% of class weight being pulled. Semi will be 200%.

17.2 Hook chain is 46 inches long plus or minus ½ inch with all hooks. Chain and all attachments are to be a minimum of 7/8-inch grade 80. Refer to rule 5.23D for pull chain hook anti-unhooking spec.

17.3 Chains attached to pan and buckboard to be 12 inches (plus or minus ¾ inch) on each side to pan drawbar at the same height from ground as pan drawbar. Chains to tie into main pull chain 17 inches or 18 inches ahead of first pivot point (hammer link) clamp to main chain. Do not heat or weld to or on main chain. Steer chains to ½ inch grade 8 chain or next size larger for normal duty chain. When main chain is extended tight and straight ahead, both steer chains should be snug (not loose or not tight).

17.4 King pin minimum 2 15/16 inch. Side pins minimum 2 inch with a minimum of two shear points per side.

17.5 Pan can pivot 0 to 15 degrees.

17.6 Any or all of these brakes are to be air or air-over hydraulic with positive on-off control. The braking system must be strong enough to stop a fully loaded box in a runaway situation.

17.7 Box Drive chain

17.7A Box Drive chain must be a minimum size of two single 120.

17.7B Box drive chain must meet ASME/ANSI B29.1 Standards.

17.7C Box drive chain must have a minimum tensile strength of 34,000 lbs.

17.7D American Made or American Assembled is preferred.

17.7E Chain must be attached to box with adequate attachments.

17.8 reserved

17.9 Must use a minimum of tandem axles.

17.10 Trolley

17.10A If box and trolley rides on top of rails, must have two hold downs one on each rail securely fastened to the box for the full length of the box. These hold downs must be constructed of material equal to or greater than flange thickness. Sleds using hold down clips must have 2 gussets per side equal to or greater than the hold down thickness and must be welded. So trolley and box cannot jump off rails.

17.10B Weight transfer machines built after January 1, 2005 must be built with the wheels between top and bottom rail flanges inside or outside of rails.

17.11 reserved

17.12 reserved

17.13 reserved

17.14 reserved

SECTION 18
GENERAL GUIDELINGS FOR CLASS 7 SLEDS

18.1 Must be able to transfer 400% of class weight being pulled. Semi will be 250%.

18.2 Hook chain is 46 inch long plus or minus ½ inch with all hooks. Chain and all attachments are to be a minimum of 7/8-inch grade 80. Refer to rule 5.23D for pull chain hook anti-unhooking spec.

18.3 Chains attached to pan and buckboard to be 12 inches (plus or minus ¾ inch) on each side to pan drawbar at the same height from ground as pan drawbar. Chains to tie into main pull chain 17 inches or 18 inches ahead of first pivot point (hammer link) clamp to or bolt thought main chain. Do no heat or weld to or on main chain. Steer chains to ½ inch grade 8 chain or next size larger for normal duty chain. When main chain extended tight and straight ahead, both steer chains should be snug (not loose or not tight).

18.4 King pin minimum 2 15/16 inch Side pins minimum 2 inches with a minimum of 2 shear points per side.

18.5 Pan can pivot 0 to 15 degrees.

18.6 Brakes

18.6A Any or all of these brakes are to be air or air-over hydraulic with positive on-off control.

18.6B The braking system must be strong enough to stop a fully loaded box in a runaway situation.

18.7 Box Drive chain

18.7A Box Drive chain must be a minimum size of two single 120.

18.7B Box drive chain must meet ASME/ANSI B29.1 Standards

18.7C Box drive chain must have a minimum tensile strength of 34,000 lbs.

18.7D American Made or American Assembled is preferred.

18.7E Chain must be attached to box with adequate attachments.

18.8 reserved

18.9 Must use a minimum of tandem axles.

18.10 Trolley

18.10A Wheels must run down inside frame rail flanges required on class 7 weight transfer machines, with a minimum of (20) twenty square inches of attachments material between the weight box wheels and the bottom of the weight box. So trolley and box cannot jump out of rails.

18.10B Weight transfer machines built after January 1, 2005 must be built with the wheels between top and bottom rail flanges inside or outside of rails.

18.11 Reserved

18.12 Reserved

18.13 Reserved

18.14 Reserved

SECTION 19
General Guidelines for Class 8 sleds

19.1 Must be able to transfer 500% of class weight being pulled except SEMIS 250%.

19.2 Hook chain on sled is 46 inches long plus or minus ½ inch with all hooks. Chain and all attachments are to be minimum 1-inch grade 80. Refer to rule 5.23E for pull chain hook anti-unhooking spec.

19.3 Steer chains attached to pan and buckboard to be 12 inches (plus or minus ¾ inch) on each side to pan drawbar at the same height from ground as pan drawbar. Chains to tie into main pull chain 17 inches or 18 inches ahead of first pivot point (hammer link) clamp to or bolt through main

chain. Do not heat or welt to or on main chain. Steer chains to be ½ inch grade 8 chain or next size larger for normal duty chain. When main chain extended tight and straight ahead, both steer chains should be snug (not loose or not tight).

19.4 King pin to be minimum of 3 inches, side pins minimum 2 ½ inches with 4 shear points.

19.5 Pan can pivot 0 to 15 degrees.

19.6 All sled brakes must be air.

19.7 Box drive chain

19.7A Box Drive chain must be a minimum size of two single 140.

19.7B Box drive chain must meet ASME/ANSI B29.1 Standards.

19.7C Box drive chain must have a minimum tensile strength of 46,000 lbs.

19.7D American Made or American Assembled is preferred.

19.7E Chain must be attached to box with adequate attachments.

19.8 Drawbar must be minimum 3 square inches of steel at all points including any pinhole with pin removed. The minimum diameter of any pin is 1 ¼ inches.

19.9 Must use a minimum of tandem axles.

19.10 Trolley

19.10A Wheels must run down inside frame rail flanges required on class 8 weight transfer machines, with a minimum of (20) twenty square inches of attachments material between the weight box wheels and the bottom of the weight box. So trolley and box cannot jump out of rails.

19.10B Weight transfer machines built after January 1, 2005 must be built with the wheels between top and bottom rail flanges inside or outside of rails. Maximum clearance between wheels and rail flanges is ½ inch.

19.11 Front Rail Stop

19.11A Must have a minimum 2 inch thick steel on front on box rails. Rails must run through stop and be welded on both sides.

19.11B Sleds built after January 1, 2013 will have a minimum of 3-inch thick steel on front on box rails.

19.12 Class 8 must run a minimum of 1710 series driveline components.

19.13 Class 8 must use billet type rear end and 2 15/16” drive axles in transfer shaft.

19.14 Class 8 will use 80 series tooth clutch with adequate supply line pressure with check valve on the pressure side of clutch.

Rule changes for this printing of the rule book are in **Bold**.