



LOCAL TECHNICAL
ASSISTANCE PROGRAM



NEBRASKA WINTER MAINTENANCE WORKSHOP AND SKILLS TESTS



August 13, 2016

Lancaster Event Center

Lincoln

Skill Test Rules & Course Manual

Rules

1. All contestants must check in and pick up team numbers at the Skills Test registration table.
2. Each entry will be issued a number that must be affixed to the equipment by the starting judge.
3. The Skills Test will be run in team number order. Each individual or team is responsible for being at the starting line when designated
4. Seat belts must be worn by each contestant when running the obstacle courses. The Skills Test judge will check to see if seat belts are secured at the beginning and at the end of the obstacle course.
5. Skills Test equipment may not be altered in any way by any contestant. The only exceptions are that mirrors and seats may be adjusted prior to starting the course.
6. Any form of recklessness that could endanger course officials or spectators, or damage course obstacle or Skills Test equipment, or driving that does not reflect proper equipment operation or simulate real life conditions will not be tolerated. The Skills Test Master will immediately disqualify any team exhibiting any of these reckless characteristics. Actions that will result in disqualifications include: excessive speed, spinning tires or running the course the wrong way.
7. Participants will be disqualified if the Skills Test Master detects alcohol or any other drug during the Skills Test.
8. Failure to comply with any of the rules or instructions contained in this manual may result in disqualification from the Skills Test.
9. Disqualification will be determined by the Skill Test Master and will be final.

Obstacle Course

The obstacle course is designed to test an operator's ability to maneuver a vehicle through a series of obstacles that simulate actual operation conditions. The objective is to complete the course without hitting any of the obstacles, and to operate the equipment in such a way as to demonstrate safe and proper equipment handling. Whenever an obstacle is hit or knocked down, penalty points are deducted from the score.

Scoring

The skills test rules and scoring are designed to make the event as challenging as possible. The rules are also designed to ensure safety, and the proper use and operation of equipment.

The objective of each team or individual participant is to accumulate the most points for all events. The score is derived by subtracting penalty points from the obstacle course total points possible for all events. The team/individual with the highest overall score is declared the winner. Course time will be used to break ties when they occur.

Obstacle Course

The Skills Test Master will walk the obstacle course with all event participants.

All safety practices should be strictly observed during the obstacle course event

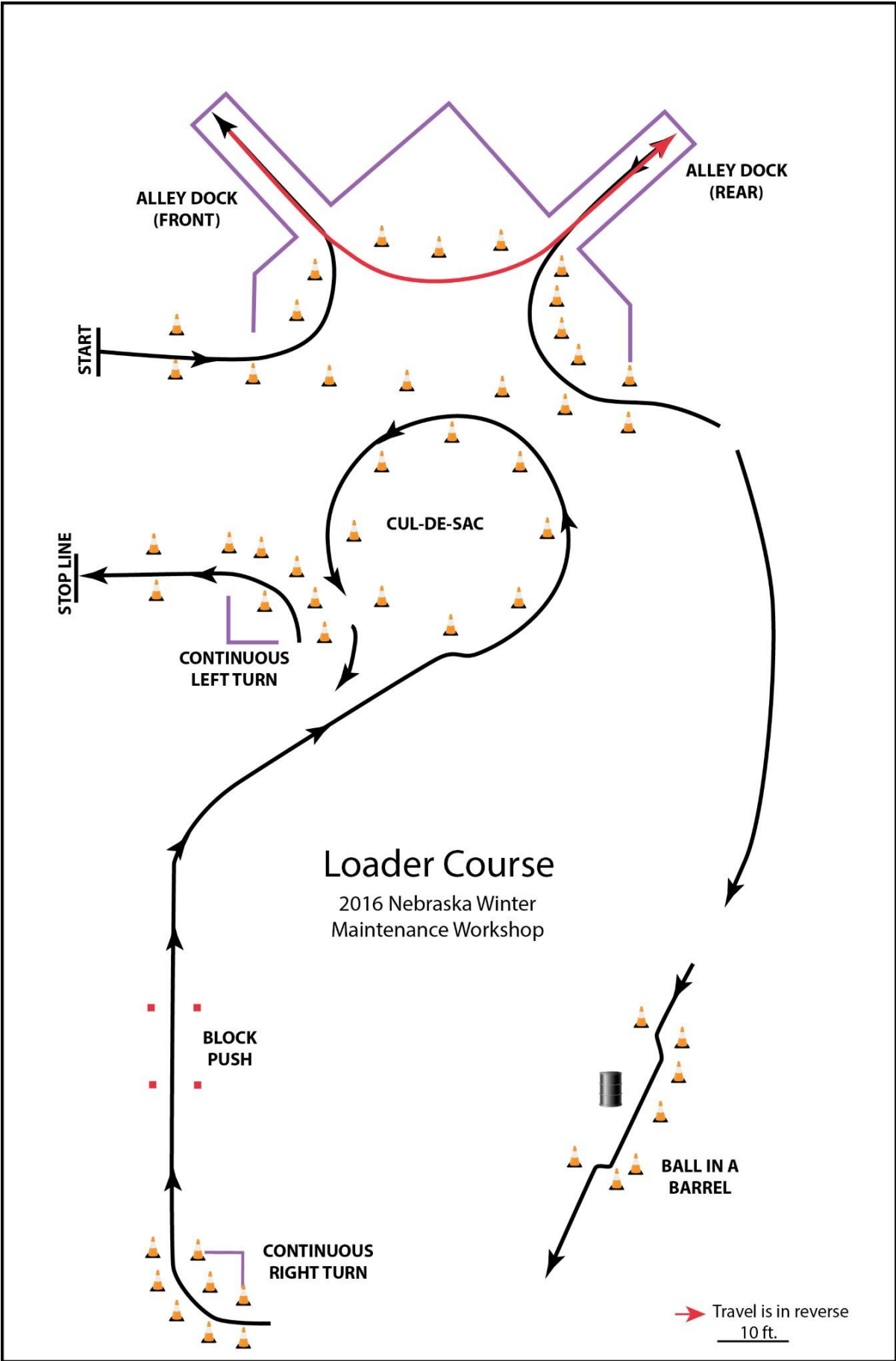
Time: Total time between the Start and Finish Lines

Prior to the event, the official course average time will be established by event officials.

At the direction of the Skills Test Master, the team entering the obstacle course will be directed to the starting line. The Skills Test Master will direct the operator to pull up so the forward tip of the equipment is directly on the start line. The Skills Test Master will allow each team enough time to adjust mirrors and seats, and check to see if seat belts are secured.

The round will begin when the signal light turns green. If the course does not have a signal light, wait for the Skills Test Master's start. The clock will begin at this time. All course rounds will be timed and 1 point per second over average shall be deducted until no points remain. Operators exceeding the maximum time will be told to stop to keep program on schedule.

The course is marked by chalk lines, arrows and traffic control devices. Follow the course through each obstacle. Scoring will only take place within the limits of each obstacle boundary. If the piece of equipment hits a cone or barricade, points will be deducted. If the Skills Test Master defines excessive knockdowns of cones or barricades as reckless behavior, participant shall be subject to disqualification.



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Obstacle #1 Alley Dock (Front)

The objective is to maneuver the loader forward between the barrels without making contact with any of them, stop with the loader bucket as close to the back of the obstacle as possible without making contact and sound the horn so judges can measure the distance of the bucket to the back of the obstacle. Lowest possible score is 0.

Accomplishing this obstacle	125 points
Within 0 – 12" of rear barricade	-0 points
Over 12" of rear barricades	-50 points
Hit rear barricade/rail	-50 points
Hit barrels or side rails	-25 points each time
Stopping	-25 points each time
Changing directions	-25 points each time
Raising or lowering bucket	-25 points each time
Running out of the course	-125 points

Obstacle #2 – Alley Dock (Rear)

The objective is to maneuver the loader backwards between the barrels without making contact with any of them, stop with rear of the loader as close to the back of the obstacle as possible without making contact, sound the horn so judges can measure the distance from the rear of the loader to the back of the obstacle. Lowest possible score is 0.

Accomplishing this obstacle	125 points
Within 0 - 12" of rear barricade	-0 points
Over 12" of rear barricades	-50 points
Hit rear barricade/rail	-50 points
Hit barrels or side rails	-25 points each time
Stopping	-25 points each time
Changing directions	-25 points each time
Raising or lowering bucket	-25 points each time
Running out of the course	-125 points

Obstacle #3 – Ball In Barrel

The objective is to place the ball in the barrel. Lowest possible score is 0.

Accomplishing this obstacle	75 points
Ball in barrel	75 points
Barrel hit	-25 points each time
Changing directions	-25 points each time

Obstacle #4 Continuous Right Turn

The objective is to maneuver the loader around a tight right turn in a continuous motion and come as close to the inside cone without making contact with it. Lowest possible score is 0.

Accomplishing this obstacle	75 points
Within 0 - 6" of inside cone	-0 points
Between 6 - 12" of inside cone	-25 points
Over 12" of inside cone	-50 points
Hit inside radius cone	-50 points
Hit outside radius cone	-25 points each cone
Stopping	-25 points each time
Changing directions	-25 points each time
Raising or lowering bucket	-25 points
Running out of the course	-75 points

Obstacle #5 – Block Push

The objective is to push the block off the end of the measuring stick without allowing the block to fall off either side. Lowest possible score is 0.

Accomplishing this obstacle	75 points
Push block off end	-0 points
Push block between 10 – 15 feet	-25 points
Push block between 0 – 10 feet	-50 points
Hit outside cone	-25 points each cone
Stopping	-25 points each time
Changing directions	-25 points each time
Running out of the course	-75 points

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Obstacle #6 – Cul-De-Sac

The objective is to maneuver the loader around the cul-de-sac in one continuous motion and not make contact with the inside or outside cones. Lowest possible score is 0.

Accomplishing this obstacle	75 points
Hit inside or outside radius cones	-25 points each time
Stopping	-25 points each time
Changing direction	-25 points each time
Raising or lowering bucket	-25 points each time
Running out of the course	-75 points

Obstacle #7 Continuous Left Turn

The objective is to maneuver the loader around a tight left turn in a continuous motion and come as close to the inside cone without making contact with it. Lowest possible score is 0.

Accomplishing this obstacle	75 points
Within 0 – 6" of inside cone	-0 points
Between 6 - 12" of inside cone	-25 points
Over 12" of inside cone	-50 points
Hit inside radius cone	-50 points
Hit outside radius cone	-25 points each cone
Stopping	-25 points each time
Changing directions	-25 points each time
Raising or lowering bucket	-25 points each time
Running out of the course	-75 points

Obstacle #8 – Stop Line

This is the final obstacle on the loader course. The objective is to come as close to the stop line as possible without any part of the bucket touching or going past it. In the case of the bucket not being parallel to the stop line but behind it, measurement will be taken from the furthest part from the stop line. Time stops when the operator sounds the horn. Lowest possible score is 0.

Accomplishing this obstacle in 0 - 6"	125 points
Between 6+ - 12"	-50 points

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Between 12+-18"	-75 points
Between 18+-24"	-100 points
Over 24"	-125 points
Touch or over line	-125 points
Stopping	-25 points each time
Changing directions	-25 points each time
Running out of the course	-125 points

Item #9- Time

There will be an average time setup before the Skills Test. If the operator goes over that time, one point per second will be deducted from their score.

Loader Skill Test Scorecard

Contestant # 01

Loader Skills Test Scorecard

OBSTACLE	POSSIBLE POINTS	POINTS EARNED
Alley Dock (Front)	125	
Alley Dock (Rear)	125	
Ball in Barrel	75	
Continuous Right Turn	75	
Block Push	75	
Cul-de-Sac	75	
Continuous Left Turn	75	
Stop Line	125	
Total Possible Points	1150	
Time Deduction	1 PT/SEC	
Total Score		

Judge's Name: _____

Course Completion Time: _____ minutes _____ seconds

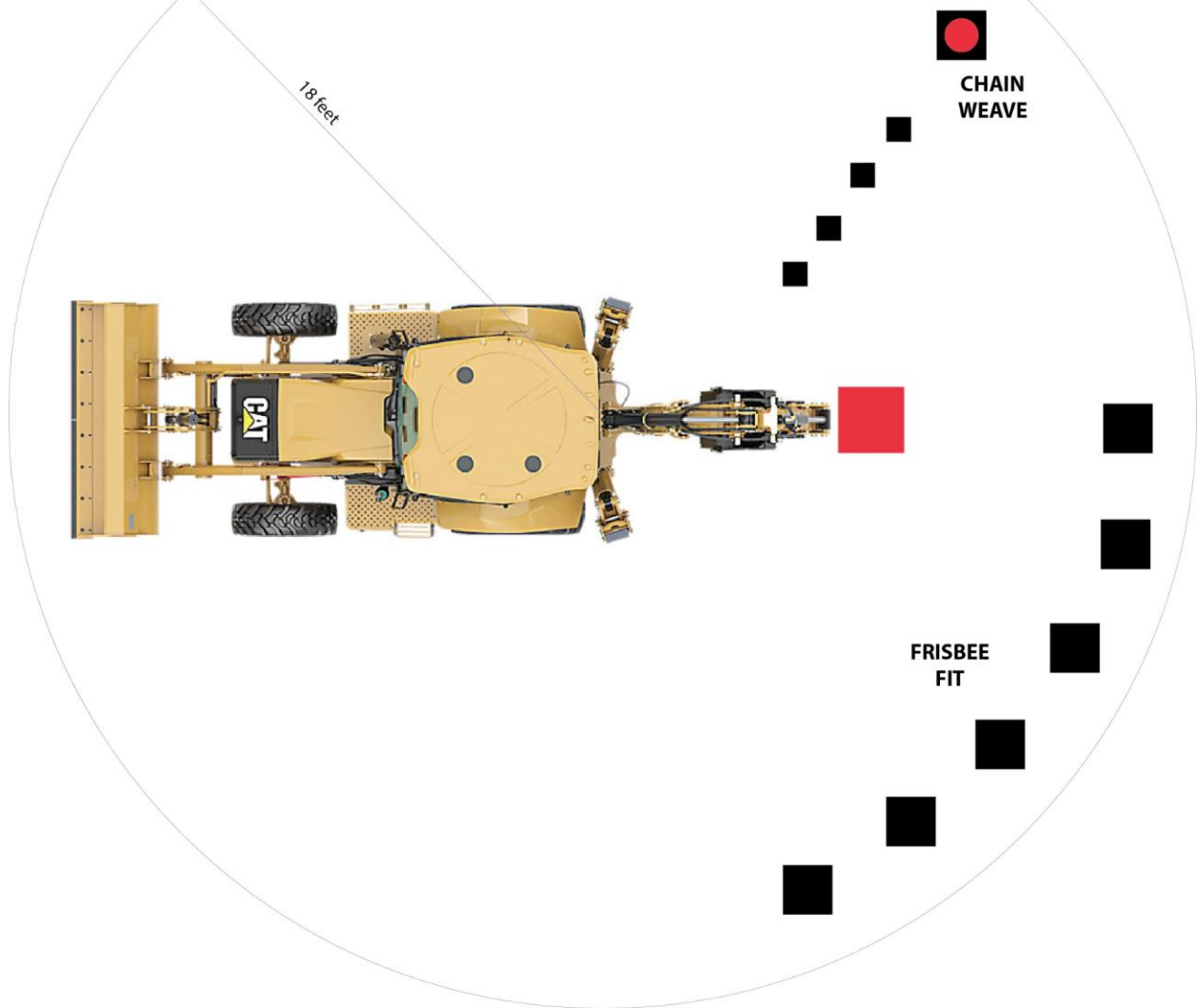
Deduction of points over average time: _____

Total Score		
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Judge's Name: _____

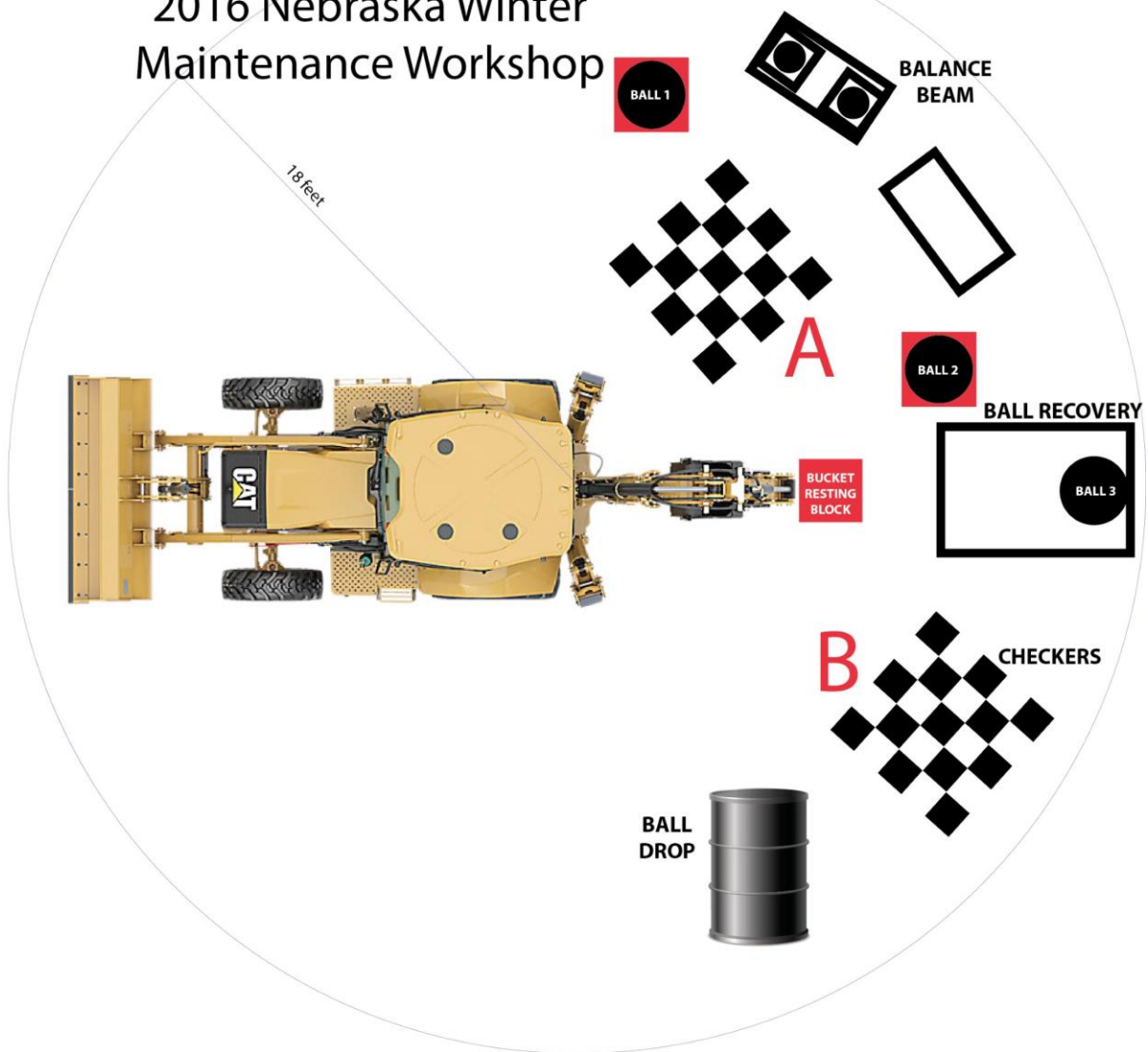
Backhoe Course 1

2016 Nebraska Winter
Maintenance Workshop



Backhoe Course 2

2016 Nebraska Winter
Maintenance Workshop



Obstacle #1 – Chain Weave

The objective is to maneuver a chain around the bowling pins in a serpentine pattern. Operators must weave from the base towards the machine and in a return pattern back towards the base. The chain is connected to a bowling ball and handle to allow pick-up with the bucket. Prior to beginning the task, the chain must touch the ground between the red and yellow starting lines. During completion of the task, the chain may not leave the ground at any time between the yellow lines. Penalties will be assessed for hitting or knocking over the bowling pins.

Lowest possible score is 0.

Accomplishing this obstacle	400 points
Each pin hit with the bucket	-100 points
Each pin knocked over	-200 points
Failure to encircle a pin with chain	-200 points per pin
Reset of base & ball/chain (1 allowed)	-200 points each time
Lifting the chain off the ground	-400 points

Obstacle #2 – Frisbee Fit

The object is to maneuver the Frisbee attached to the bucket through each of the gates without knocking any tennis balls from their mounts. The first gate is at base. The operator must successfully leave and return to base without knocking the tennis balls from their mounts for a full score. Knocking over or breaking a gate results in a penalty. Lowest possible score is 0.

Accomplishing this obstacle	400 points
50 points per gate with base counting as two gates	
Touching a gate or ball with the Frisbee or the mounting post	-10 points per infraction
Displacing one tennis ball in a gate	-25 points
Displacing two tennis balls in a gate	-50 points
Knocking over a gate	-200 points
Breaking a gate	-200 points
Failure to travel through the gate	-50 points

Obstacle #3 – Ball Recovery

The objective is to extract a soccer ball from a cage without hitting the cage or dislodging the tennis balls from the frame. The obstacle is a success when the ball leaves the cage. It can remain on the ground. Knocking the ball off of its base rendering it unreachable forfeits this obstacle. Popping the ball disqualifies the competitor from the Backhoe Skills Test. Lowest possible score is 0.

Accomplishing this obstacle	250 points
Hitting the frame	-50 points per time
Dislodging a tennis ball	-100 points per ball

Obstacle #4 – Checkers

The objective is to move each checker from the starting board to a destination board. Checkers on Board A should be on white squares. Checkers on Board B should be on black squares. Event officials will instruct each competitor as to which board is their destination board. Lowest possible score is 0.

Accomplishing this obstacle	200 points
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Properly placing each checker	50 points
Dropping or tipping a checker	-50 points per checker
Setting the checker outside the destination square	-25 points per checker

Obstacle #5 – Ball Drop

The objective is to pick up two balls on stands and drop them in a drum. Operators may pick up and drop both balls in one pass or in two passes. Lowest possible score is 0.

Accomplishing this obstacle	100 points
Dropping a ball outside the drum	-50 points
Knocking over the ball support	-100 points

Obstacle #6 – Balance Beam

The objective is to move the balance beam from one stand to another stand without dropping the tennis balls balanced on the beam. Event officials will instruct each competitor as to which stand is the destination stand. Penalties will be assessed for dropping any of the balance beam components. Lowest possible score is 0.

Accomplishing this obstacle	250 points
Dislodging a tennis ball	-100 points per ball
Dislodging a pipe section	-100 points per section
Dropping the beam	-250

Backhoe Skill Test Scorecard

Contestant # 01

Backhoe Skills Test Scorecard

OBSTACLE	POSSIBLE POINTS	POINTS EARNED
Backhoe Course #1		
Chain Weave	400	
Frisbee Fit	400	

Backhoe Course #2		
Ball Recovery	250	
Checkers	200	
Ball Drop	100	
Balance Beam	250	
Total Possible Points	1600	
Time Deduction	1 PT/SEC	
Total Score		

Judge's Name: _____

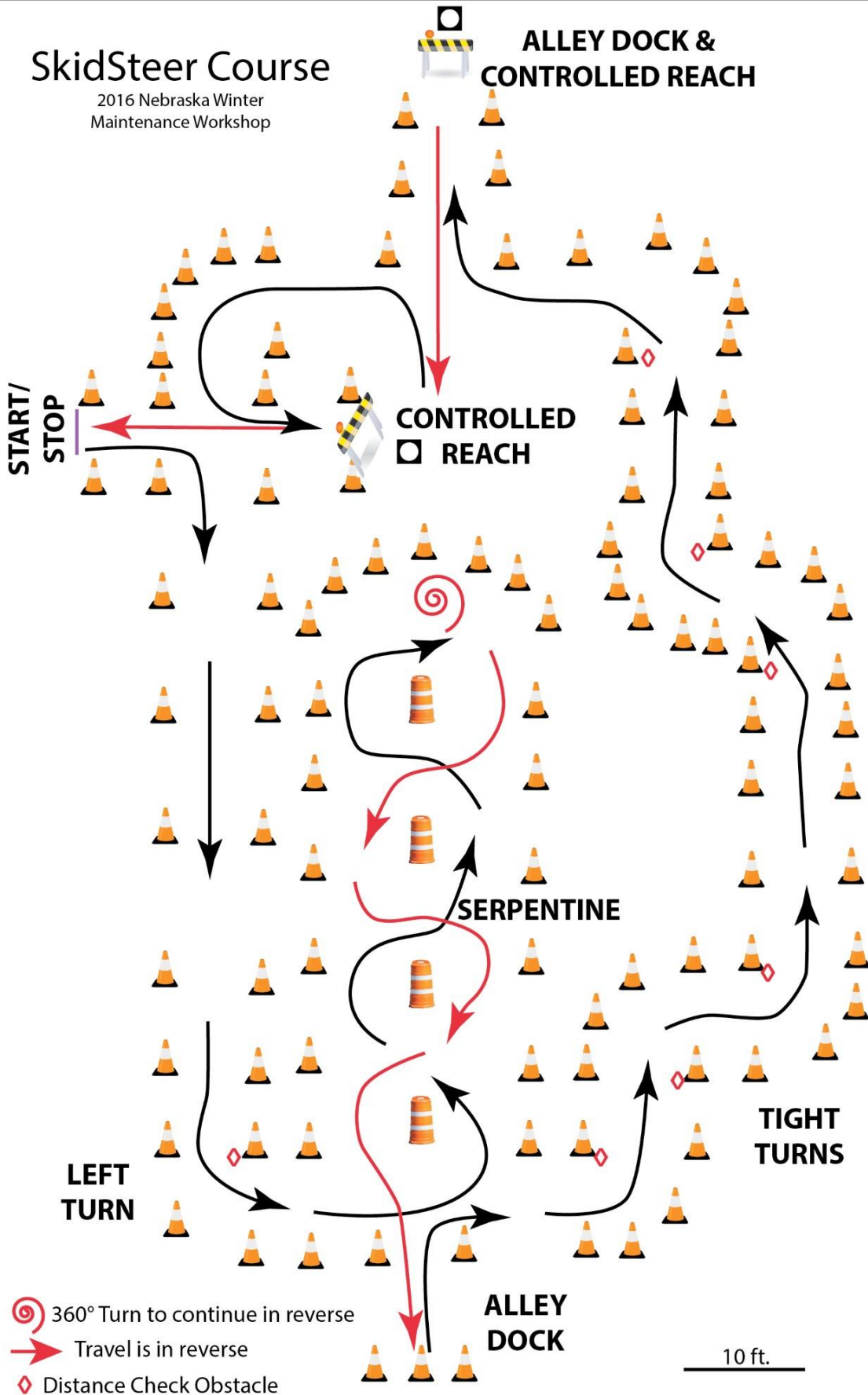
Course Completion Time: _____ minutes _____ seconds

Deduction of points over average time: _____

Total Score		
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SkidSteer Course

2016 Nebraska Winter
Maintenance Workshop



Obstacle #1 – Distance Check

Tight, precise turns are essential when operating a skidsteer loader. Throughout the course at marked cones, the distance of the machine's tire path from the cones will be scored. Lowest possible score is 0.

Accomplishing this obstacle	700 points
Maximum score per cone/turn	100 points
Within 0-6" of inside cone	-0 points
Within 6-12" of inside cone	-25 points
Over 12" from inside cone	-50 points
Hit inside radius cone	-50 points
Hit outside radius cone	-25 points

Obstacle #2 – Serpentine

This obstacle tests the operator's ability to negotiate the skidsteer loader forward around the barrels, then backwards through the same course without hitting the barrels or the outer cones. When changing directions, the operator should complete at least a 360° turn before proceeding in reverse. Lowest possible score is 0.

Accomplishing this obstacle	400 points
Hitting barrel	-100 points each barrel
Hitting outside cones	-50 points each hit
Changing direction	-25 points each time
Stopping	-25 points each time

Obstacle #3 – Rear Alley Dock

The alley dock tests an operator's ability to back the vehicle into a confined space. The operator must drive into the space without hitting the sides and must stop as close to the back barricade as possible without hitting it.

In addition to not hitting any of the barricades in the alley dock, it is the operator's responsibility to sound the horn (if the machine is equipped). When the horn sounds, the judge will measure the distance from the back of the machine to the barricade. After the judge measures and signals, continue the course. Lowest possible score is 0.

Accomplishing this obstacle	225 points
Within 6" of rear barricade	-0 points
Between 6" to 12" of rear barricade	-25 points
Between 12" to 18" of rear barricade	-50 points
Between 18" to 24" if rear barricade	-75 points
Over 24" of rear barricade	-100 points
Hitting rear barricade	-100 points

Hitting barricades or side rail -100 points each hit

Obstacle #4 – Alley Dock and Controlled Reach

For this obstacle, the operator must drive into the space without hitting the sides and must stop as close to the back barricade as possible without hitting it. After stopping at the barricade, lower the bucket over the barricade without touching it to knock the tennis ball off of its stand. Lowest possible score is 0.

Stopping at the barricade	225 points
Within 6" of rear barricade	-0 points
Between 6" to 12" from barricade	-25 points
Between 12" to 18" from barricade	-50 points
Between 18" to 24" from barricade	-75 points
Over 24" from barricade	-100 points
Hitting barricade	-100 points
Hitting barricades or side rail	-100 points each hit
Knocking tennis ball off of stand	200 points
Knocking over stand	-100 points

Obstacle #5 – Controlled Reach

The objective is to stop at the barricade and use the bucket to knock a tennis ball off of a stand on the far side of the barricade without touching the barricade or knocking over the stand. Lowest possible score is 0.

Knocking tennis ball off of stand	200 points
Knocking over stand	-100 points
Hitting barricade	-100 points
Hitting barricades or side rail	-100 points each hit

Obstacle #6 – Stop Line

The objective is to back to the designated line and stop. Honk (if equipped) to signal completion of the round. Lowest possible score is 0.

Stopping at the barricade	225 points
Within 6" of rear barricade	-0 points
Between 6" to 12" from barricade	-25 points
Between 12" to 18" from barricade	-50 points
Between 18" to 24" from barricade	-75 points
Over 24" from barricade	-100 points
Hitting barricade	-100 points

SkidSteer Skill Test Scorecard

Contestant # 01

SkidSteer Skills Test Scorecard

OBSTACLE	POSSIBLE POINTS	POINTS EARNED
Distance Check	700	
Serpentine	400	
Alley Dock	225	
Controlled Reach #1	200	
Controlled Reach #2	200	
Stop Line	225	
Total Possible Points	1950	
Time Deduction	1 PT/SEC	
Total Score		

Judge's Name: _____

Course Completion Time: _____ minutes _____ seconds

Deduction of points over average time: _____

Total Score		
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