

Equestrian Australia Driving Navigator/Backstepper Competency Training



January 2024

Introduction



Driving is a team sport. It requires everyone in the team to be knowledgeable and competent. The Navigator/Backstepper is not a passenger.

This resource has been developed for two purposes -

- 1. Certificate 1** - For use by all EA-affiliated Clubs, EA Driving coaches, Organising Committees, Judges and Officials, Athletes and current and prospective navigator/backsteppers, to improve safety, horse welfare, rules knowledge and skills development at all levels of Driving, and
- 2. Certificate 1 and 2** - To formalise EA recognition of competency for those adults acting as navigator/backsteppers for **Para Athletes and Athletes under 18 years, in FEI competitions.**



Navigator/Backstepper - Certificate 1



This resource forms part of the material needed for the EA Navigator/Backstepper Certificate 1 quiz questions, available for all EA members or EA-affiliated Club members.

The quiz questions cover the information in the resource, as well as the EA Driving Rules, the FEI Driving Rules (both freely available online), and the EA and FEI Safety and Horse welfare resources.

After perusal of this slide show and the rule books, go to the EA website to request a link to start your assessment.

The Certificates are free to complete and are valid until the holder decides that physical fitness may hinder their ability to be a useful addition to any Driving team.

Navigator/Backstepper - Certificate 2



Only those Navigator/Backsteppers who are on the carriage with a Para Athlete or an Athlete under 18 years, in an FEI competition (CAI) need a Certificate 2.

Your Certificate 2 remains current unless you decide that you are not medically/physically fit enough for the role.



Evidence of competency is to be submitted to the EA National office, with your Navigator/Backstepper Certificate 1, in order to qualify for a Navigator/Backstepper Certificate 2 can be by one or more of the following

- Short video of skills (eg in a competition or during training)
- Letter of confirmation from an EA Accredited Driving Coach or from an accredited coach from another National Federation
- Letter of confirmation from an executive of a Club which holds Driving events
- Other supporting evidence that you see fit, for example, submitting particulars about being an experienced navigator/backstepper for a competitor

Who Needs a Navigator/Backstepper?



In EA events, members of the driving team when ON the carriage are called navigator/backsteppers, and OFF the carriage are called grooms. In FEI, they are called on-carriage support personnel.

Singles and Pairs turnouts must have at least one Navigator/Backstepper on the carriage at all times. Four-in-hands must have at least one backstepper and one navigator.



Who Needs a Navigator/Backstepper?



The exception to the Navigator/Backstepper rules may be when the single underheight pony (under 120cm) is at a Club activity, and the maximum weight ratio of 1 to 1.5 cannot be satisfied. There must still be one groom ON THE GROUND dedicated to watching the driver and pony turnout at all times. In this circumstance, they should stand as close as possible to where the pony is being driven (eg at E of the Dressage arena, or at the Start/Finish line of a cones course).

Single ponies under 120cm or ponies in multiples under 108cm are considered underheight by the FEI for competition in Driving, and therefore not eligible for the EA pathway to FEI, through the EA Participant and Competitor levels.

However, Clubs may make the decision to include activities for small ponies, with adequate risk assessment of horse welfare measures.



Horse Welfare



Rules alone cannot ensure horse welfare.

Well-trained navigator/backsteppers and an observant, knowledgeable, Club-appointed Horse Welfare Officer, Steward or Driving Coach, on the ground, are the best resources possible, constantly monitoring respiration, recovery rates, weight ratios, and looking for other signs of distress, including gait irregularities, broken or worn harness causing injuries or rub marks on the horse, etc.



Horse Welfare - Weight Ratios



An important aspect of Driving-related horse welfare is deciding when a horse or pony is being asked to work with too much weight (carriage and occupants).



EA Driving rules require 'at least one' Navigator/Backstepper on the carriage at all times. More than one might be useful in some cases. For example, if the weight ratio (optimum for competition 1:1 horse to carriage and people, with a maximum 1:1.5) can still be attained, in order to maintain safety, there may be up to three navigator/backsteppers on a carriage with a Driver with a disability, with a big horse.

If the horse weighs 600kg, and the carriage and harness weighs 325kg, the Driver weighs 75kg, then a further 200kg of navigator/backsteppers can theoretically be on the carriage for EA classes, and as a maximum, an extra 300kg might be acceptable for low effort activities, if conditions are good.

However, the lighter the load, the better the performance we can expect from the horse.

What happens if the recommended EA weight ratio can't be obeyed?



Ideally, for Sport Driving, EA recommends a 1:1 ratio, horse to carriage and occupants, with a maximum of 1:1.5, where less effort is involved, eg Challenge tests. For example, if a single 130cm pony weighs 280kg, it is recommended that the combined weight of the carriage, harness, Driver and Navigator/Backstepper is no more than 280kg. The maximum acceptable weight ratio (with a firm flat surface, fair weather, activities that require less effort, and good horse fitness) is recommended to be no more than 1:1.5, horse to carriage and occupants.



So, if a 120cm pony weighs 200kg, the carriage and harness weighs 170kg and the Driver weighs 70kg, the navigator/backstepper weight would have to be 60kg or less, to meet the 1:1.5 recommended maximum ratio for EA classes, as per the EA Driving Rules, for horse welfare. At this ratio, the ground would need to be firm and flat, the weather conditions mild, the pony fit enough for the job, and an event with less effort.

Where a horse or pony is obviously pulling more than the recommended weight, it is up to everyone (athletes, navigator/backsteppers, coaches, judges, stewards, organising committee members and spectators) to intervene on behalf of the horse. It must always be all about the horse.

This weight ratio is the reason that EA and FEI support pairs driving of smaller equines.

Horse Welfare – Under Height Ponies



As we are all involved in Driving, we need to be aware of our Social Licence to Operate. The general public is likely to view images like the single pony pictured here in a very negative light, and probably rightly so!

We cannot be seen to endorse people driving very small single ponies, because we need to DO the right thing as well as be SEEN to be doing the right thing by the horse.

As the ponies get smaller, drivers and grooms alike need to be very attuned to respiration rates, heart rates and recovery times, and the image they are projecting.

Putting underheight ponies in pairs may be an option.



Horse Welfare - When the weight is too much



Where a horse or pony is obviously pulling more than the recommended weight and it has become a horse welfare issue, it is up to everyone (athletes, navigator/backsteppers, coaches, judges, stewards, organising committee members and even spectators) to intervene on behalf of the horse.

At an EA competition, you should report it to the Organising Committee, the judge or a steward. Sometimes, it might just be a case of providing information to a novice owner.....

Be polite. Be helpful. Be kind.

**Horse Welfare is
everyone's job**

Horse Welfare - Gait Irregularities



Navigator/backsteppers are sometimes called upon for horse inspections and trot ups



A good navigator/backstepper is also a good horseperson, and will readily recognise a horse whose gait has changed. Rhythm (tempo and regularity) should be continually checked, and any issues pointed out immediately to the Driver. Bobbing polls, 'skipping' actions and other rhythm irregularities almost always mean that the horse should be immediately assessed.



All horsepeople need to be aware of anhydrosis, where a horse fails to appropriately sweat. Too often we hear from less experienced people about how fit their horse is, because they do not sweat. Of course, fit horses usually sweat even more readily than unfit horses.

Regular rehydration, including with electrolytes and/or appropriately flavoured water, or water brought from home are all important horse management considerations.

What to Wear



Navigator/Backsteppers MUST wear an EA approved and tagged helmet, long pants, and safe, covered footwear suitable for running in.

Approved back/body protectors (Level THREE riding or Level TWO Driving) are compulsory for Drivers and Navigator/Backsteppers under 18 at all times.

They are also compulsory for all drivers and navigator/backsteppers, irrespective of age, in Marathon phases and in Marathon training.

Body protectors of any standard are strongly encouraged for everyone on a carriage, where they are not compulsory.

Otherwise, attire should be neat and tidy, sun-safe and understated. No aprons or jackets are required for any phase. There are penalties for no gloves in a Dressage or Challenge test (Driver or Navigator/Backstepper).



Some Rules.....



Drive-1 Challenge Test

Version: March 2022

Event Identification No.:

Area 40m x 60m, continuous or non-continuous arena surrounded with 7 cone obstacles. Suggested Drive Time = 12 minutes

Horse/s	Athlete
Backstepper/Navigator/s	Date
Judge Name	Judge Position

Notes for use by the Participant's Competitor/Coach: Where the EA is a competitor class, please refer to the regulations.
 PURPOSE: An outline of the basic requirements for the test. See rules. How: How should the drive happen with a safety focus. Anything unclear with the test.
 INTRODUCTION: What, how, why, when, where, how long, beginning, ending, if appropriate, the drive rules.
 INTRODUCTION: Location of the test for the test to be conducted for the test participant.

- Horse/athletes must be at least four years old.
- Tests to be held on the test arena.
- The arena should be marked in the testing list. This should include the arena size, showing system, location.
- Use, permission to be used, dimensions for gates and back through hole as required, according to the Scale of Training.
- Judge must be present at all times. The judge must be present at the start and end of the test.
- Test or test obstacle changes may be used. Obstacles shall be 100cm for all angles, any gate and any back in hand 100cm for horse pairs, and 100cm for test.
- For each course, the test shall be set up in a way that allows the test to be completed in the time allowed.
- A competitor must be present at the start and end of the test. The test shall be completed by the participant/competitor for all angles and pairs in this test. An angle test is not allowed to be used as a test in this test.
- Competitor must be present at the start and end of the test. The test shall be completed by the participant/competitor for all angles and pairs in this test.
- Backstepper/athletes are compulsory for drives and navigators/backsteppers under 18 years. This is strongly encouraged for anyone on a carriage.
- This test is an essential, compulsory, test for navigators/backsteppers, unless advised, athletes are strongly encouraged to attend. (EA000 10/04/11)

TEST	DRIVE/BACKSTEPPER	DRIVE/BACKSTEPPER	REQUIREMENTS
1	Enter at walking trot position (drive) or at walk (backstepper) in the arena.	Quality of walking trot	
2	Circle 10m (drive) or 10m (backstepper) in the arena.	Controlled tempo, rhythm, straightness, balance, lead and body position	
3	Backstepping trot on the diagonal (drive) or backstepping (backstepper) in the arena.	Controlled tempo, rhythm, straightness, balance, lead and body position	
4	Walk in hand (drive) or walk in hand (backstepper) in the arena.	Controlled tempo, rhythm, straightness, balance, lead and body position	
5	Half stop (drive) or half stop (backstepper) in the arena.	Controlled tempo, rhythm, straightness, balance, lead and body position	
6	Hand stop (drive) or hand stop (backstepper) in the arena.	Controlled tempo, rhythm, straightness, balance, lead and body position	
7	Half stop (drive) or half stop (backstepper) in the arena.	Controlled tempo, rhythm, straightness, balance, lead and body position	
8	Hand stop (drive) or hand stop (backstepper) in the arena.	Controlled tempo, rhythm, straightness, balance, lead and body position	
9	Half stop (drive) or half stop (backstepper) in the arena.	Controlled tempo, rhythm, straightness, balance, lead and body position	
10	Hand stop (drive) or hand stop (backstepper) in the arena.	Controlled tempo, rhythm, straightness, balance, lead and body position	
11	Half stop (drive) or half stop (backstepper) in the arena.	Controlled tempo, rhythm, straightness, balance, lead and body position	
12	Hand stop (drive) or hand stop (backstepper) in the arena.	Controlled tempo, rhythm, straightness, balance, lead and body position	
13	Half stop (drive) or half stop (backstepper) in the arena.	Controlled tempo, rhythm, straightness, balance, lead and body position	
14	Hand stop (drive) or hand stop (backstepper) in the arena.	Controlled tempo, rhythm, straightness, balance, lead and body position	
15	Half stop (drive) or half stop (backstepper) in the arena.	Controlled tempo, rhythm, straightness, balance, lead and body position	
16	Hand stop (drive) or hand stop (backstepper) in the arena.	Controlled tempo, rhythm, straightness, balance, lead and body position	
17	Half stop (drive) or half stop (backstepper) in the arena.	Controlled tempo, rhythm, straightness, balance, lead and body position	
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27	Half stop (drive) or half stop (backstepper) in the arena.	Controlled tempo, rhythm, straightness, balance, lead and body position	
28	Hand stop (drive) or hand stop (backstepper) in the arena.	Controlled tempo, rhythm, straightness, balance, lead and body position	
29	Half stop (drive) or half stop (backstepper) in the arena.	Controlled tempo, rhythm, straightness, balance, lead and body position	
30	Hand stop (drive) or hand stop (backstepper) in the arena.	Controlled tempo, rhythm, straightness, balance, lead and body position	

Under the EA Driving rules, navigator/backsteppers, on a four wheeled carriage, may either stand or sit, as close to the middle of the back of the carriage, in any phase. In a Dressage or Challenge test, once you enter the arena, you should stay in that place, and not change between sitting and standing, except where safety is compromised.

The navigator/backstepper is allowed to discreetly call a Dressage test, Challenge test, or Cones course, provided nothing is held in the hands (eg sheet of paper or phone). Sheets may be attached to the back of the vehicle, or phones/tablets may be safely and firmly attached to the carriage in some way that the navigator/backstepper can view easily.

Navigator/backsteppers may only call what is written on the test sheet, and then, only once. Gestures and pointing, or any other obvious cueing is not permitted.

And more.....



Navigator/backsteppers must be at least 14 years old for an adult driver and at least 18 years old for a driver under 18. Navigator/backsteppers for drivers under 18 MUST be competent and experienced in the role.

EA Driving Rule 19.2 applies to Athletes and Navigator/Backsteppers. The EA Driving Rule Book and the EA Dressage tests, Challenge tests and Cones Course A documents are openly available on the Equestrian Australia website, [Driving | Equestrian Australia](#).

And more.....



An important aspect of all on-the-ground grooms and on-the-carriage navigator/backsteppers is acting effectively as the groom at the horse's head.

This is done by standing in front of the horse with the horse's nose as close to the centre of the groom's body as possible. There are variations of this, but none where the groom stands to the side. This is the recognised safe way.

For example, with a very experienced horse that has just completed a tough marathon, the groom might stand back away from the front of the horse, to give them more 'breathing space', while still being on hand and ready to react to hold the horse if necessary.

For a four-in-hand, on-ground grooms should stand in front and to the side of the wheelers, so they are still visible to the horse.



Driver is always First On the Carriage



This rule is pretty self-explanatory - No-one else on, until the Driver is in the box seat, with their reins, and their full attention upon the horse and the situation.

Only then, at the Driver's direction, should the Navigator/Backstepper leave the horse's head and mount the carriage, swiftly and safely. The Driver is also the last off.

In an emergency situation, at the Driver's direction, the Navigator/Backstepper should dismount and go straight to the horse's head or wherever they are directed to go, depending on the situation.

The Navigator/Backstepper should never dismount on purpose without being directed by the Driver.



Backsteppers **MUST** be competent at harnessing, unharnessing, putting to and taking from the carriage



It an emergency occurs during a competition, everyone on the carriage must be competent to get the horse/s out as quickly and safely as possible. It is always the opposite of how you harness up.



SINGLES – Breeching unfastened first, then traces and finally shafts removed from tugs

PAIRS – Inside trace, outside trace on each horse, then pole straps then coupling reins



Sometimes a horse who is down is best kept down. Discuss a plan for this with your coach and driver so you know what to do.

Backsteppers need to know about the horses, harnesses and carriages they are using. You can't do this job just by stepping on the back.....

The Four Main Roles of Navigator/Backstepper



1. Safety

The role is to keep the weight distribution over the four wheels as even as possible to avoid a roll-over or collision. They need to be agile and reasonably fit in order to do this successfully.

- a. On the flat, the navigator/backstepper always needs to be able to see the horses. Therefore, they must keep their weight over the inside wheels, that is lean right when the horse/s are turning right, and left when turning left, to avoid the carriage rolling out at speed. To this end, the navigator/backstepper often needs to quickly change their position, so needs to know all the hand holds and feet positions that are safe and effective on any particular carriage. Navigator/Backsteppers at EA Drive-1 and Drive-2 level and at Club level are encouraged to use handholds and remain safe at all times.
- b. On a hill, the backstepper/navigator must always keep their weight on the UPHILL side of the carriage to avoid a rollover DOWN the hill. This is the case whether the driver is going up the hill or down.



The Four Main Roles of a Navigator/Backstepper

1. Safety (continued)



The navigator/backstepper needs to be able to 'jump' the carriage to the side to avoid obstacles, wherever possible. This is a learned skill, through experience, and is not dependent on the weight of the person, just the timing and manner of execution. Being able to move the carriage successfully improves safety, improves horse welfare and improves times in competition, so is an important skill for the Driving team.

The navigator/backstepper on a four-in-hand carriage also has the job of holding the end of the seat belt around the driver's lap. Seat belts are also allowed for Disability and Para Drivers in certain circumstances, so it is possible that a navigator/backstepper may be required to hold the end of the belt on a single or pairs, as well.



The Four Main Roles of a Navigator/Backstepper



2. Horse Welfare

- a. A competent navigator/backstepper knows the horse/s well and will be alert for lameness, distress, dehydration and fatigue. Plans on times, etc, may need to be changed on the day to improve horse welfare.
- b. Navigator/backsteppers are an integral part of the horse recovery process, particularly immediately after a marathon course section completion and before any vet checks.
- c. A competent navigator/backstepper needs to be knowledgeable and experienced with each horse/s' harness and be able to change settings, remedy harness incidents (eg leg over a pole or trace), repair disconnected harness (eg a trace, or a curb chain) and provide clear and concise information to the driver about the state of harness, while the driver remains in the box seat.
- d. The Navigator/Backstepper may also be asked to handle the horse in a trot-up, either at the beginning of the competition or in a vet check, if the Driver cannot do this for some reason. Practice before the event is recommended. The horse should be in a bridle, and not held short so the horse can move forward freely.

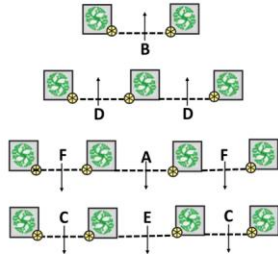
The Four Main Roles of a Navigator/Backstepper

3. Navigation in the Cones and Marathon phases, Dressage/Challenge Test Calling

The navigator/backstepper must know the cones or marathon course at least as well as the driver and provide timely and accurate directions, whether or not the driver needs them.

- The navigator needs to be aware of every Marker and Compulsory Turning Flag, which are usually numbered, so they can be 'ticked off' to ensure the correct course.
- The navigator/backstepper needs to have walked every Cones Course or marathon obstacle with the driver many times, and have a plan, and alternatives very clear in their mind. They need to not only know the proposed track, but they need to be aware of the placement of dislodge-able elements (usually balls in cups) which incur penalties if dislodged. The position of the Start and Finish lines for each obstacle also has to be clear in the mind of a competent navigator/backstepper.

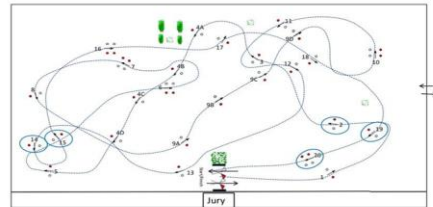
Obstacle 7



Knock down 13x1



#4	Length: 800 meters # Obi: 20 Speed: 24kmph TA: 200 seconds	#2	Length: 800 meters # Obi: 20 Speed: 23kmph TA: 192 seconds
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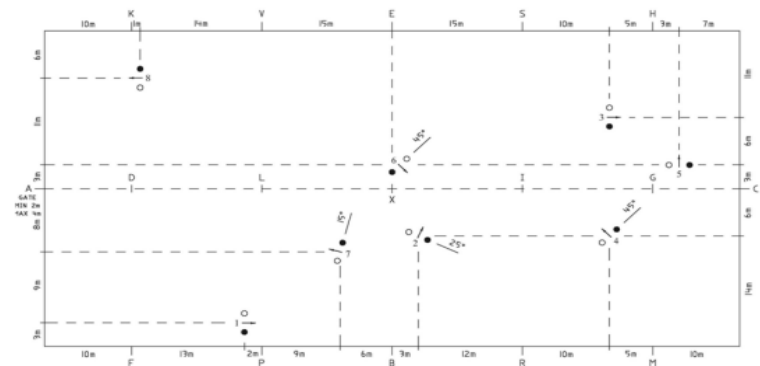
The Four Main Roles of a Navigator/Backstepper



3. Navigation in the Cones and Marathon phases, Dressage/Challenge Test Calling (continued)

- c. The competent navigator/backstepper will know the EA Dressage test, Challenge test or the Cones course, and is able to discreetly direct the driver by voice only. During these phases, the navigator/backstepper should remain seated or standing fairly still, as close to the centre of the carriage as is practicable.

For this to happen successfully, the Cones and Challenge courses are available for Athletes, Navigator/Backsteppers, coaches and Chefs d'Equipes to walk before the competition begins. You may walk the course as many times as you need to, which will depend on your experience in remembering courses. You will need more walks than you think, in the beginning..... Use the course walk time wisely.



The Four Main Roles of a Navigator/Backstepper



4. Time-Keeping

- a. The navigator/backstepper must also be very aware of the kilometre markers on a marathon course, or the optimum time set for a Cones Course, so as to judge the time on the course and the speed the driver needs to attain. Usually this is done by setting out the ideal time for each section of the course beforehand and having a sheet setting this out displayed on the back of the carriage. Now, there a range of great phone apps to help as well.
- b. The navigator/backstepper is also in charge of any official paperwork needed for the marathon phase. This needs to be handed in to officials at the end of every section, and should be kept safe during the journey around the course.



Different Backstepper Positions to Keep the Carriage Balanced.....

Photo credits – Stal De Ronde





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Different Backstepper Positions to Keep the Carriage Balanced..... Continued

Photo credits – Stal De Ronde



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Thank you for your
participation

