Retro reflectors and warning signs: animal drawn vehicles

- 34. (1) No person shall drive an animal drawn vehicle on any road unless the vehicle is fitted with—
 - (a) a warning sign, directed to the rear, which conforms with the requirements of subsection (2) and (3); and
 - (b) two white retro reflectors directed to the front, which comply with the requirements of subsection (4).
- (2) A warning sign referred to in paragraph (a) of subsection (1) shall—
 - (a) be fitted so that its lower edge is not less than three hundred millimetres and its upper edge not more than one comma two metres above ground level; and
 - (b) extend horizontally for such distance as is necessary to indicate the overall width of the vehicle to within four hundred millimetres on either side of the vehicle.
- (3) A warning sign referred to in paragraph (a) of subsection (1) shall consist of strips of—
 - (a) red retro reflective material 50 millimetres wide; and
 - (b) yellow retro reflective material 50 millimetres wide in the form as illustrated in the Fifth Schedule.
- (4) The white retro reflectors referred to in paragraph (b) of subsection (1) shall be fixed to the front of the vehicle, within four hundred of either side of the vehicle and placed at the same height.

Retro reflectors: motor cycles

- 35. (1) No person shall drive a motor cycle on any road unless—
 - (a) a red retro reflector is fixed to the rear of the motor cycle and directed to the rear of such motor cycle; and
 - (b) in the case of a motor cycle with more than two wheels, it is equipped with—
 - (i) two white retro reflectors fixed to the front of the motor cycle; and

- (ii) two red retro reflectors fixed to the rear of any goods container forming part of, or
- (iii) attached to, the motor cycle;

and each such retro reflector is so placed that no part of the goods container extends laterally more than two hundred and twenty millimetres beyond the reflector; measured from the outer edge of the reflector; and

(c) if a side-car is attached to the motor cycle, a red retro reflector is fixed to the rear of the side-car and directed to the rear of such side-car.

Retro reflectors: heavy vehicles

- 36.(1) No person shall drive on any road a heavy vehicle, unless white retro reflector complying with the requirements of subsection (2) is fixed to the vehicle.
- (2) The white retro reflector referred to in subsection (1) shall—
 - (a) consist of a continuous strip of white retro reflecting material not less than 50 millimetres in width; and
 - (b) be fixed to the front of the vehicle; and
 - (c) extend horizontally for such distance as to indicate the vehicle's width to within four hundred millimeters on either side:

Provided that, if the structure of the vehicle is such that it is not possible to comply with paragraphs (a) to (c), the retro reflectors shall be fixed so as to comply with these paragraphs as far as is reasonably possible.

Warning sign: heavy vehicles

- 37. (1) No person shall drive a heavy vehicle on any road unless a warning sign, conforming with the requirements of subsections (2) and (3), is fitted to the rear of the vehicle and directed to its rear.
 - (2) A warning sign referred to in subsection (1) shall—

- (a) be fitted so that its lower edge is not less than threehundred millimetres; and
- (b) its upper edge not more than one comma two metres above ground level; and
- (c) extend horizontally for such distance as is necessary to indicate the overall width of the vehicle to within four hundred millimetres on either side of the vehicle:

Provided that if the structure of the vehicle is such that it is not possible to comply with this subsection, the warning sign shall be placed so as to comply with this subsection as far as is reasonably possible.

- (3) A warning sign referred to in subsection (1) shall be not more than five hundred millimetres high and shall consist of diagonal strips of—
 - (a) red reflective material one hundred millimetres wide; and
 - (b) yellow reflective material one hundred millimetres wide in the form of a chevron pattern as illustrated in the Fourth Schedule.

Retro reflectors: rear of commercial motor vehicles

- 38. (1) No person shall drive a commercial motor vehicle on any road unless a red retro reflector complying with subsection (2) is fitted to the vehicle.
- (2) The red retro reflector referred to in subsection (1) shall
 - (a) consist of a continuous strip of red reflective material, and not less than fifty millimeters in width; and
 - (b) fixed to the rear of the vehicle; and
 - (c) extend horizontally for such distance as to indicate the vehicle's width to within four hundred millimeters on either side:

Provided that if the structure of the vehicle is such that it is not, possible to comply with the paragraphs (a) to (c), the reflectors shall

be fixed so as to comply with those paragraphs as far as is reasonably possible.

Retro reflectors: other motor vehicles

- 39. (1) No person shall on any road drive a motor vehicle other than—
 - (a) a heavy vehicle; or
 - (b) a commercial motor vehicle; or
 - (c) a motor cycle;

unless two red retro reflectors complying with section 32 are fixed to the rear of the vehicle—

- (i) within four hundred millimeters of either side of the vehicle, measured from the outer edge of the reflector to the edge of the rear of the vehicle; and
- (ii) at the same height.
- (2) No person shall on any road drive a motor vehicle other than a heavy vehicle or a motor cycle, unless two white reflectors complying with section 32 are fixed to the front of the vehicle—
 - (a) within four hundred millimeters of either side of the vehicle measured from the outer edges of the reflector to the edges of the rear of the vehicle; and
 - (b) at the same height.

Retro reflectors: sides of vehicles

- 40. (1) No person shall drive on any road—
 - (a) any motor vehicle or combination of vehicles, or heavy vehicle, other than a motor vehicle towing a disabled vehicle, the overall length of which exceeds 8 metres; or
 - (b) a heavy vehicle;

unless amber retro reflectors complying with the provisions of this section are fixed to each side of the motor vehicle, or combination of vehicles, or heavy vehicle as the case may be.

(2) The retro reflectors referred to in subsection (1) shall-

- (a) consist of a continuous strip extending to within 400 mm of the outer edges;
- (b) be fitted at a height of not less than 300 millimetres and not more than 1.2 metres from the ground:

Provided that, if the structure of the vehicle, or combination of vehicles or heavy vehicle is such that it is not possible to fix the retro reflectors as a continuous strip the retro reflectors shall be fixed as near as possible to the requirement of paragraph (a) and (b) of subsection (2).

Warning sign: trailers

- 41. (1) No person shall drive a motor vehicle drawing a light trailer on any road unless a continuous red retro reflector is fixed to the rear of the trailer extending to within 400 mm of the trailer measured from the outer edges of the reflector to the outer edges of the trailer.
- (2) No person shall on any road drive a motor vehicle drawing a trailer other than a light trailer unless a warning sign—
 - (a) directed to the rear of the trailer; and
 - (b) complying with the requirements of section 37 is fitted to the rear of the trailer:

Provided that the warning sign referred to in subsection (2) shall comply with the provisions of section 32 except subsection (1) (b) and (c) and subsection (4)(c).

- (3) No person shall drive a motor vehicle drawing any trailer on any road unless—
 - (a) a reflective white "T" of type III complying with the requirements of subsection (4) is fitted to the extreme right front of the trailer;
 - (b) a reflective red "T" complying with the requirements of subsection (4) is fitted to the extreme right rear of the trailer and more than one comma two metres above ground level;
- (4) The letter "T" referred to in subsection (3) shall be not less than 150 mm high and 120 mm wide, and the strokes of the letters shall

be not less than 50 mm thick and placed on a black background not less than 200 mm in height and 175 mm in width.

Brakes: general requirements of motor vehicles and trailers

- 42. (1) No person shall drive a motor vehicle or trailer on any road unless the braking system fitted to it complies with the requirements of this section.
- (2) Except in the case of an air-brake system, the pedal, lever or push rod, as the case may be, by which any braking system is operated shall have a reserve of at least one-third of its designed distance of travel when the brakes are fully applied.
- (3) In the case of air brake system, sufficient clearance shall be provided for between the foot pedal and the floor in order to ensure maximum opening of the foot valve.
- (4) Except in the case of a braking system fitted into a motorcycle with a side-car every braking system shall operate with equal intensity on the wheels symmetrically placed in relation to the longitudinal centre-line of the vehicle.
- (5) Every motor vehicle or trailer which is fitted with a braking system embodying a vacuum or pressure reservoir, shall be equipped with a warning device, so placed as to be readily visible to the driver of the vehicle when in the driving seat which indicates any impending failure or deficiency in the vacuum or pressure system:

Provided that in the case of a motor vehicle, other than a heavy vehicle, which is propelled by an internal combustion engine and fitted with a braking system embodying a vacuum reservoir for which the vacuum is derived directly from the engine's induction system, it shall not be necessary to provide such a warning device, if, in the event of failure or deficiency in the vacuum system, the brakes of that braking system are sufficient to bring the vehicle safely to rest within a reasonable distance.

(6) Every braking system shall be constructed so that it is not rendered immediately ineffective by the non-rotation of the engine of the motor vehicle, or in the case of a trailer, by the non-rotation of the engine of a motor vehicle to which the trailer is attached at the time.

- (7) All the equipment which comprises any braking system, shall be designed in such a way as to withstand any reasonable vibration, corrosion, dirt, wear and tear to which it will be subjected during normal use.
- (8) Only brake fluid complying with Standard SAZS 189 of 1976 or its equivalent or better shall be used in any braking system.
- (9) Where an air braking system is fitted to a motor vehicle or trailer, the system's air reservoir or other storage device—
 - (a) shall be fitted in such a way that it can be removed for inspection for rust or corrosion or any other defect; and
 - (b) when fitted to a trailer, may be manufactured as part of the trailer's framework; and
 - (c) shall be marked with both working and test pressure on a plate affixed to the reservoir or device; and
 - (d) shall be capable of being drained physically or automatically.
 - (10) The brake pipe, tube or hose fitted to a vehicle must-
 - (a) be manufactured from a material, appropriate for its intended use in the vehicle; and
 - (b) be long enough to allow for the full range of the steering and suspension movements of the vehicle; and
 - (c) be fitted to prevent it being damaged during the operation of the vehicle by—
 - (i) a source of heat; or
 - (ii) any movement of the parts to which it is attached or near it.
- (11) Where nylon pipe is used for the piping of a braking system, suitable inserts shall be fitted to prevent the pipe from collapsing where it enters and is held by a pipe fitting.
- (12) Where two braking systems are required or permitted to be fitted to a motor vehicle or trailer in terms of these regulations—
 - (a) one of such systems shall be operated by direct mechanical action without the intervention of any hydraulic, electric

- or pneumatic device, except in the case of a spring brake whose application is by exhaustion of air pressure in an air braking system; and
- (b) the same brake shoes or pads operating within or upon the drums or discs of the vehicle may be used for operating both such systems; and
 - (c) one of the systems shall be capable of acting on braking surfaces directly attached to parts not liable to failure;
 and
- (d) the braking system on a motor vehicle must be arranged to allow the driver of the motor vehicle to apply brakes from a normal driving position; and
- (e) every brake chamber fitted to an air braking system shall be of an appropriate size and capable of producing the required brake force; and
- (f) defective brake means any one of the following-
 - (i) absence of effective braking action upon application of the service and parking brakes; or
 - (ii) missing or broken mechanical components; or
 - (iii) loose brake components; or
 - (iv) audible air leak on any part of the system; or
 - (v) hydraulic leak on any part of the system; or
 - (vi) brake maladjustments; or
 - (vii) cracked, loose or missing lining; or
 - (viii) brazed brake pipe on hydraulic braking system; or
 - (ix) any other defect which may in the opinion of the Inspecting Officer is likely to cause danger.

Brakes: pedal cycles

- 43. (1) No person shall ride a pedal cycle on any road unless the pedal cycle is equipped with two efficient brakes one of which operates on the rear wheel and the other on the front wheel.
- (2) No person shall ride a pedal cycle equipped with two rear wheels and one front wheel unless it is equipped with two independent brakes which operate on the front and rear wheels respectively.

(3) No person shall ride a pedal cycle equipped with two front wheels and one rear wheel unless it is equipped with two independent brakes which operate on the rear wheel.

Brakes: motor cycles

44. No person shall drive on any road-

- (a) a motor cycle without a side-car attached unless the motor cycle is equipped with at least two brakes which act upon the motor cycle's front and rear wheels and which, when applied, prevent the front and rear wheels from revolving in either direction; or
- (b) a motor cycle with a side-car attached unless the motor cycle is equipped with two independent brakes which, when applied, prevent the front and rear wheels of the motor cycle from revolving in either direction.

Brakes: tractors, construction vehicles and vehicles towing construction trailers

45. (1) No person shall drive on any road—

- (a) a tractor, other than a tractor designed to form part of an articulated unit, whether drawing a trailer or not; or
- (b) a construction vehicle; or
- (c) any motor vehicle while it is towing a construction trailer;

unless the vehicle concerned is equipped with brakes, the application of which is capable of bringing the vehicle to rest from a speed of twenty-five kilometers per hour on a level, dry road surface within a distance of twelve metres as specified in the table below;

	INITIAL SPEED IN KM/H	MAXIMUM DISTANCE IN M	MINIMUM DECELERATION IN M/S	MINIMUM EQUIVALENT BRAKING FORCE IN N/KG
TRACTORS. CONSTRUCTION VEHICLES & VEHICLES TOWING CONSTRUCTION TRAILERS	25	12	1.9	1.9

Provided that where a construction vehicle or motor vehicle while towing construction trailer is capable of travelling at a speed in excess of forty kilometres per hour it shall have brakes complying with the requirements of section 46.

Brakes: motor vehicles other than tractors, construction vehicles or motorcycles

- 46: (1) No person shall drive on any road a motor vehicle other than—
 - (a) a tractor not designed to form part of an articulated unit; or
 - (b) a construction vehicle; or
 - (c) a motor cycle;

unless the motor vehicle is equipped with an efficient footbrake and handbrake independently operated, so adjusted as to operate equally with respect to the wheels on either side of the vehicle.

(2) For the purpose of subsection (1) a brake which is not capable of bringing a motor vehicle, whether loaded or unloaded, to rest from a speed of thirty kilometres per hour on a level, dry road surface in the following distances shall be deemed to be an inefficient brake unless the brakes comply with the standard specified in the tables below—

TABLE A

Footbrake of motor vehicle or combination of motor vehicles

	INITIAL SPEED- IN KM/H	MAXIMUM STOPPING DISTANCE IN M	MINIMUM DECELERATION IN M/S	MINIMUM EQUIVALENT BRAKING FORCE IN N/KG
5 000 KG AND LESS	30	7	5	5
MORE THAN 5 000 KG	30	9	3.8	3.8

TABLE B
Handbrake of motor vehicle or combination of motor vehicles

	INITIAL SPEED IN KM/H	MAXIMUM STOPPING DISTANCE IN M	MINIMUM DECELERATION IN M/S	MINIMUM EQUIVALENT BRAKING FORCE IN N/KG
5 000 KG AND LESS	30	18	1.9	1.9
MORE THAN 5 000	30	- 24	1.4	1.4
KG				

(3) For the purpose of subsection (1), any footbrake shall have a mechanism designed to operate on all wheels fitted to a vehicle and shall be deemed to be inefficient if the first application of the footbrake does not prevent all of such wheels from revolving.

For the purpose of tables A and B the following information and formulae is applicable.

Formulae: $S = \underline{m.35}$

P

S = stopping distance in metres

M = mass of the vehicle at the time of testing in kgs

P = total braking force from readings on the roller brake testers

35 = constant at a speed of 30km/h

Brakes: trailers

- 47. (1) No person shall drive on any road a motor vehicle drawing a trailer, other than a light trailer unless the trailer has an efficient twin line braking system which is constructed according to the following requirements—
 - (a) every axle of the trailer shall be equipped with brakes which shall operate on each wheel and in the case of air brakes each wheel shall be equipped with an individual brake chamber; and
 - (b) the brake system shall not be rendered immediately ineffective by the non-rotation of the towing vehicle's engine; and

- (c) the brakes on a trailer must operate automatically and quickly if the trailer breaks away from the towing vehicle and remain in operation after such break away; and
- (d) every trailer must be fitted with a parking brake—
 - (i) if fitted to a trailer of a gross mass in excess of 2000 kg, it shall be of the spring brake type and be capable of being operated from the driver's position;
 - in all other cases it should be possible to apply the parking brake manually, or otherwise directly on the trailer;

and

- (e) brake line couplings shall not be interchangeable; and
- (f) every trailer equipped with air brakes shall in addition to the footbrake and parking brake be equipped with an emergency brake capable of being operated from the driver's position of the towing vehicle.
- (2) For the purpose of this section, a brake applied by the overrun of the trailer shall be considered to be operated from the vehicle if the gross mass of the trailer does not exceed two thousand kilograms.
- (3) Any trailer to which this section applies, whether loaded, or unloaded, shall be capable of achieving a brake efficiency of at least twenty *per centum*.

Braking device: animal drawn vehicles

- 48. (1) No person shall drive an animal drawn vehicle on any road unless the vehicle is fitted with a device capable of being set to prevent at least one wheel from revolving when the vehicle is stationary.
- (2) A device referred to in subsection (1) shall be securely fixed to the vehicle by means of a cable or chain.

Presumptions regarding brakes

49. If, in a prosecution for a contravention of section 47 or 48, it is established that the brakes of the vehicle to be charged where

tested for compliance with section 45 or 46, as the case may be, and—

- (a) the speed of the vehicle was ascertained by means of a speedometer forming part of the equipment of the vehicle, it shall be presumed that the speedometer was accurate unless it is proved that, when brakes were tested, the speedometer was so inaccurate that, at an indicated speed of thirty kilometres an hour, the true speed of the vehicle was more than thirty-three kilometres per hour;
- (b) the road surface on which the vehicle was tested appeared to be level to the person conducting the test, it shall be presumed that the road surface was level unless it is proved that the road surface had a gradient of more than one per centum.

Audible warning device: pedal cycles

50. No person shall ride a pedal cycle on any road unless it is equipped with an efficient device which is in good working order and when used, is capable of giving adequate warning of its approach.

Audible warning device: motor vehicles

- 51. (1) No person shall drive on any road—
 - (a) any motor vehicle, unless the motor vehicle is equipped with an efficient warning device which is in good working order, when used, capable of emitting a sound which under normal condition is clearly audible from a distance of at least 100 metres;
 - (b) any motor vehicle unless the warning device is not operated by a button or switch that breaks contact automatically when it is released;
 - (c) any motor vehicle, other than—
 - (i) an ambulance; or
 - (ii) a fire engine; or
 - (iii) a motor vehicle used solely for the purposes of fire brigade or for fire fighting, ambulance or police purposes;

if the motor vehicle is equipped with a gong, bell or siren or any other instrument capable of emitting a sound similar to that of a gong, bell or siren.

(2) No person shall operate an audible warning device on any motor vehicle in an offensive manner.

Special visual warning device: all motor vehicles

52.(1) No person shall drive a motor vehicle on a road unless two warning devices complying with the requirements of this section are carried in the vehicle:

Provided that, if the motor vehicle is drawing one or more trailers, two additional warning devices shall be carried in respect of each such trailer.

- (2) Every warning device referred to in subsection (1) shall—
- (a) be in the form of an equilateral triangle of the dimensions, materials and construction prescribed in the Sixth Schedule: and
- (b) be permanently and legibly marked with the following particulars—
 - (i) the name of its manufacture and a serial number:
 - (ii) year of its manufacture expressed numerically as for example, 1988; and
- (c) be reflective on both sides; and
- (d) be so designed as to stand in place not more than ten degrees from the vertical with the lower base of the triangle horizontal and not more than two hundred and fifty millimetres from the ground; and
- (e) be capable of being erected in place and replaced in its container without the use of tools.
- (3) When not in use, the warning devices shall be carried in terms of subsection (1) in an opaque protective container or secured in a light-tight, enclosed and easily accessible compartment in the motor vehicle or trailer concerned.

- (4) Whenever a motor vehicle or trailer is stationary on any road, except in a place set aside for the stopping of vehicles, the driver shall place one warning device referred to in subsection (1) at the front of the vehicle or trailer and another such device at the rear, so that—
 - (a) both warning devices are on the same side of the carriageway as the vehicle or trailer; and
 - (b) the front of each warning device faces away from the vehicle or trailer and towards oncoming traffic; and
 - (c) each warning device is not less than thirty metres and not more than fifty metres from the nearest point of the vehicle or trailer.
- (5) The warning device may incorporate a battery operated flashing red light in such a way that, when the device is placed in position, the flashing red light is at the topmost corner of the device.
- (6) In the case of a vehicle carrying hazardous materials or substances as defined in the first schedule of statutory instrument 262 of 1984, the warning device shall incorporate a battery operated flashing red light in such a way that when the device is placed in position, the flashing red light is at the topmost corner of the device.

Spare wheel, tools and fire extinguisher: all vehicles

- 53. (1) No person shall drive a motor vehicle, other than a motor cycle on any road unless the vehicle is equipped with—
 - (a) a serviceable spare wheel; and
 - (b) an efficient jack; and
 - (c) a wheel-brace or wheel-spanner capable of undoing the vehicle's wheel-nuts; and
 - (d) in the case of-
 - (i) a light motor vehicle, a serviceable fire extinguisher of a commercially known as zero comma seven five kilograms; or
 - (ii) a heavy vehicle, a serviceable fire extinguisher of a size commercially known as one comma five kilograms.

- (2) Every fire extinguisher referred to in paragraph (d) of subsection (1) shall be—
 - (a) of a type and make approved by the Standards Association of Zimbabwe, which approval shall be visibly marked on the fire extinguisher; and
 - (b) secured at an easily accessible and visible position within the cab of such vehicle:

Provided that a public service vehicle shall be equipped with a fire extinguisher or fire extinguishers as provided for in the Public Service Vehicle Regulations, statutory instrument;

(c) where a vehicle is drawing a trailer on any road, the driver shall ensure that equipment specified in subsection (1)(a), (b) and (c) is carried and is capable of being fitted to or used on the trailer.

Windscreens and windows

- 54. (1) No person shall drive on any road a motor vehicle or motor cycle fitted with a cab unless it is equipped with a windscreen complying with the following requirements—
 - (a) if it is composed of glass-
 - (i) it shall consist of safety glass manufactured from either clear plate glass or flat glass that is transparent glass, the surfaces of which are flat and parallel to each other so that they provide clear, undistorted vision and reflection by grinding and polishing on both sides or by production by the float process; and
 - (ii) it shall be so constructed that, if it is damaged in any manner, it will ensure a safe degree of visibility for the driver;
 - (b) if it is composed of any other material, it shall consist of transparent material so constructed or treated that—
 - (i) if fractured, it will not readily shatter into fragments capable of causing severe cuts; and
 - (ii) it provides clear, undistorted vision and reflection;