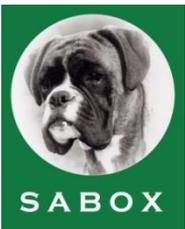




**KENNEL UNION OF SOUTHERN AFRICA**  
**CARDIAC MURMUR CERTIFICATION SCHEME FOR BOXERS**



**PLEASE SUBMIT COMPLETED CERTIFICATE TO:**

South African Boxer Breed Council (KUSA)  
P O Box 86  
MOORREESBURG  
7310  
Fax: 086 245 0624  
e-mail address: [jakkalsdans@telkomsa.net](mailto:jakkalsdans@telkomsa.net)

**CARDIAC MURMUR CERTIFICATION FOR BOXER**

**DECLARATION BY OWNER:**

Registered name of Boxer:		
<b>NB Copy of registraton certificate to be attached herewith</b>		
Registration No:		Microchip No:
Date of birth: (Boxer must be 12 months or older )	Sex:	Colour:
Name of owner:		Tel.No:
Address:		
I declare that the particulars stated above are correct and are of the Boxer examined today for cardiac mumur certification. I understand that the results of the examination are to be forwarded to KUSA, who may place the results on their database for inclusion on pedigrees/registration certificates or publication on the SABOX website..		
Signature of owner:		Date:

**DECLARATION BY VETERINARIAN:**

Name of veterinarian:	
Name of practice:	
Adress or stamp:	
Tel No:	
I hereby declare that: 1. The microchip number for the above Boxer has been verified. 2. The Boxer was auscultated for cardiac murmurs on _____ 3. I have read and applied the guidelines for cardiac auscultation for certification.	
NO cardiac murmurs indicative of congenital cardiac abnormalities were detected during auscultation.	
Cardiac murmurs which could be indicative of congenital cardiac abnormalities were detected during auscultation and this Boxer should be referred for echocardiography (colour Doppler imaging) before being bred from.	
Signature of veterinarian:	
Date:	

## Ascultation Guidelines

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Cardiac auscultation should be performed in a quiet, distraction-free environment. The animal should be standing and restrained, but sedative drugs should be avoided. Panting must be controlled and if necessary, the dog should be given time to rest and acclimate to the environment. The clinician should be able to identify the cardiac valve areas for auscultation. The examiner should gradually move the stethoscope across all valve areas and also should auscultate over the subaortic area, ascending aorta, pulmonary artery, and the left craniodorsal cardiac base. Following examination of the left precordium, the right precordium should be examined.

- The mitral valve area is located over and immediately dorsal to the palpable left apical impulse and is identified by palpation with the tips of the fingers. The stethoscope is then placed over the mitral area and the heart sounds identified.
- The aortic valve area is dorsal and 1 or 2 intercostal spaces cranial to the left apical impulse. The second heart sound will be most intense when the stethoscope is centered over the aortic valve area. Murmurs originating from or radiating to the subaortic area of auscultation are evident immediately caudoventral to the aortic valve area. Murmurs originating from or radiating into the ascending aorta will be evident craniodorsal to the aortic valve and may also project to the right cranial thorax and to the carotid arteries in the neck.
- The pulmonic valve area is ventral and one intercostal space cranial to the aortic valve area. Murmurs originating from or radiating into the main pulmonary artery will be evident dorsal to the pulmonic valve over the left hemithorax.
- The tricuspid valve area is a relatively large area located on the right hemithorax, opposite and slightly cranial to the mitral valve area.
- The clinician should also auscultate along the ventral right precordium (right sternal border) and over the right craniodorsal cardiac border.
- Any cardiac murmurs or abnormal sounds should be noted. Murmurs should be described as indicated below.

## Description of Cardiac Murmurs

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A full description of the cardiac murmur should be made and recorded in the medical record.

- Murmurs should be designated as systolic, diastolic, or continuous.
- The point of maximal murmur intensity should be indicated as described above. When a precordial thrill is palpable, the murmur will generally be most intense over this vibration.
- Murmurs that are only detected intermittently or are variable should be so indicated.
- The radiation of the murmur should be indicated

SOURCE: [http://www.offa.org/cardiac\\_exam.html](http://www.offa.org/cardiac_exam.html)

Orthopedic Foundation for Animals  
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Columbia, Missouri, 65201-3806  
United States of America

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