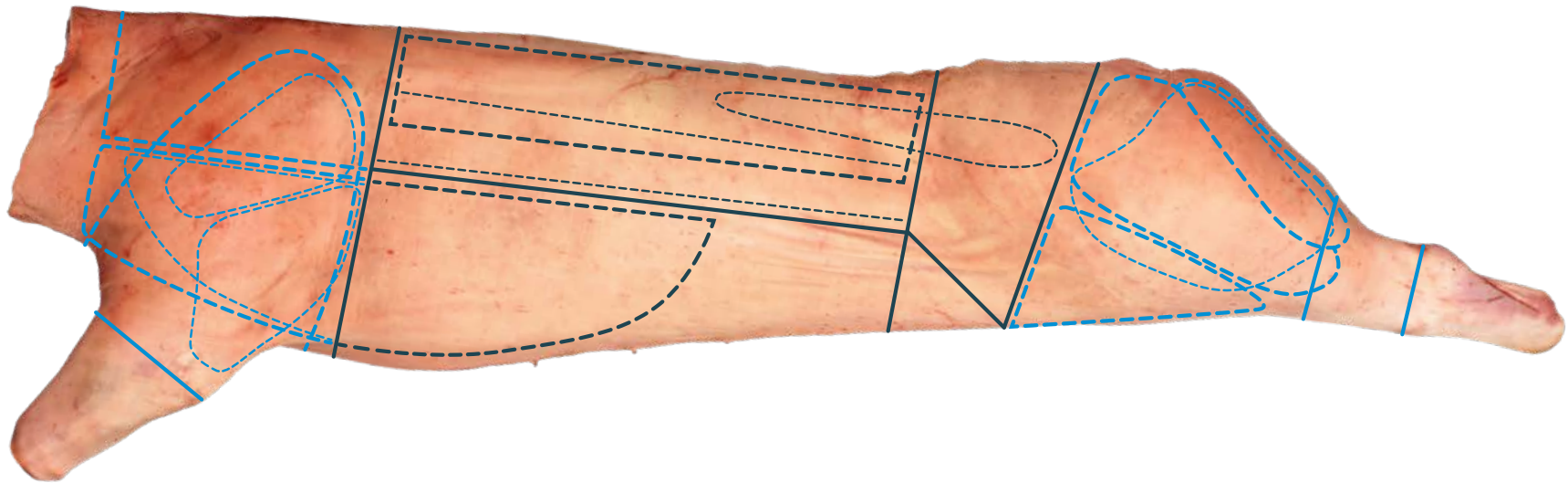


Pork – Practical – Level 1

Cutting a pork carcass into primal cuts



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Introduction

Welcome to the AHDB Meat Education Programme, Pork – Level 1, which focuses on cutting a pork carcass into individual primal cuts.

A pork carcass can be broken down in various ways to create a range of different primal cuts. Here, we have broken down the carcass into the most common British primal cuts used by processors, foodservice and independent butchers.

This manual includes detailed step-by-step information and each stage is shown with both written and photographic instruction, which will provide you with the required level of knowledge you will need to pass Level 1.

Once you have successfully completed Level 1, Level 2 will cover the breaking down of these primal muscles into basic retail and foodservice cuts, which involves many seam butchery techniques.

Good luck!

Dick van Leeuwen

AHDB Business Development Manager
and Master Butcher



Exam requirements

You are required to know how to carry out the following:

- Cut up a side of pork, selected by the examiner, into primal cuts as illustrated in this manual, within 45 minutes. You are allowed to refer to the cutting specifications
- Avoid making any unnecessary cuts/stab marks or damage to the muscles
- Name the primal cuts and the bones' structure

Note: Although factory butchers will be able to do this job very quickly, it is recommended that students first learn accuracy, and speed will follow with practise. It is more difficult to lose bad cutting habits later!

Pork carcass classification

The following equipment is approved for use in the UK:

- Optical probe
- Hennessey Grading Probe (HGP)
- Fat-O-Meater (FOM)
- AutoFOM
- CSB Ultra-Meater

The HGP, FOM, AutoFOM and CSB Ultra-Meater are all automatic recording probes.

Method 1

Optical Probe is used to measure backfat and rind thickness at the P1 and P3 positions, level with the head of the last rib. The probe is inserted 4.5 cm and 8 cm from the dorsal midline, respectively. The sum of the P1 and P3 measurements is recorded.

Method 2

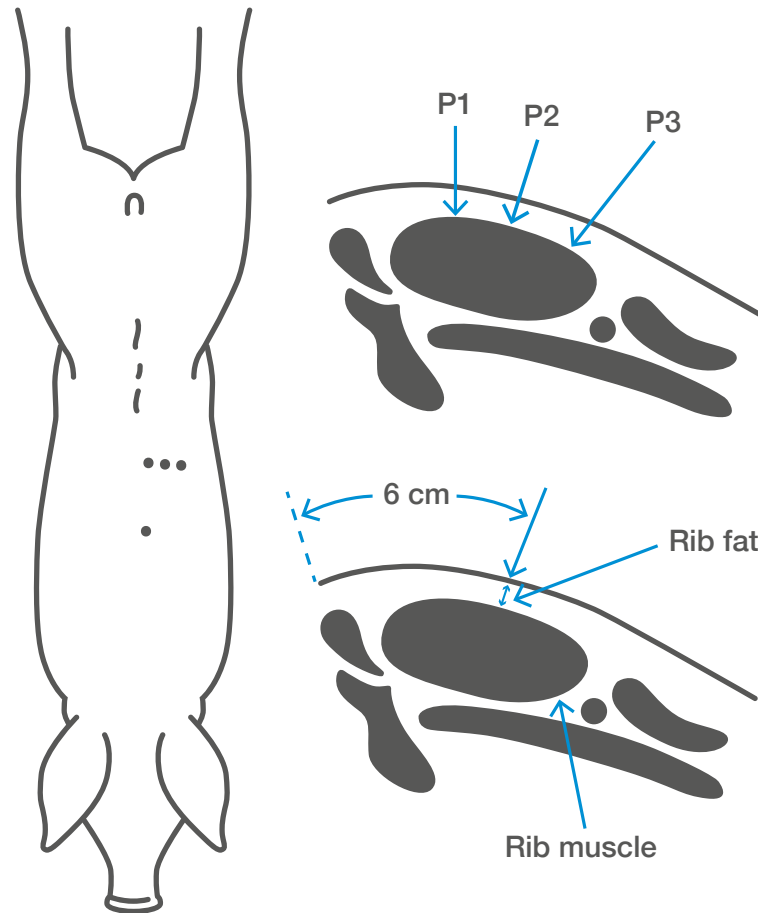
Optical Probe is used to measure backfat and rind thickness at the P2 position, level with the head of the last rib. The probe is inserted 6.5 cm from the dorsal midline.

Method 3

HGP or FOM are used to measure:

- Backfat and rind thickness at the P2 position as for Method 2. The HGP or FOM probes are inserted 6 cm from the dorsal midline
- Backfat and rind thickness at a point 6 cm from the dorsal midline between the third and fourth last rib. This measurement is referred to as rib fat
- Longissimus dorsi (eye muscle) depth at a point 6 cm from the dorsal midline between the third and fourth last rib. This measurement is referred to as rib muscle

Locations of probing sites on a pig carcass



Lean Meat Percentage (LMP) and EU Grade

LMP is calculated as follows:

- Optical probe
- Cold carcass weight and P2 (or P1 + P3) fat depths are used to estimate LMP

An EU grade can be allocated to a carcass by using the LMP.

Lean meat percentage	EU grade
60% and above	S
55–59%	E
50–54%	U
45–49%	R
40–44%	O
39% or less	P

Visual Appraisal

This is the identification of pigs with carcass faults. These are described as 'Z' carcasses. Carcasses that are scraggy, deformed, blemished, pigmented and coarse skinned, those with soft fat or pale muscle, and those devalued by being partially condemned, are recorded as 'Z' on the carcass record (PCC1 or computer equivalent). Young boars are identified and recorded. Carcasses with poor conformation are recorded as 'C' carcasses at the request of the abattoir.

Pork primal cuts

Forequarter – bone-in



Collar of Pork – boneless



Denver Muscle (Presa)



Chuck Eye Joint – Collar



Boston Butt (Neck End)



Shoulder – round



LMC



Pork Henry – whole



Brisket Muscle – fully trimmed



Brisket Rib Rack



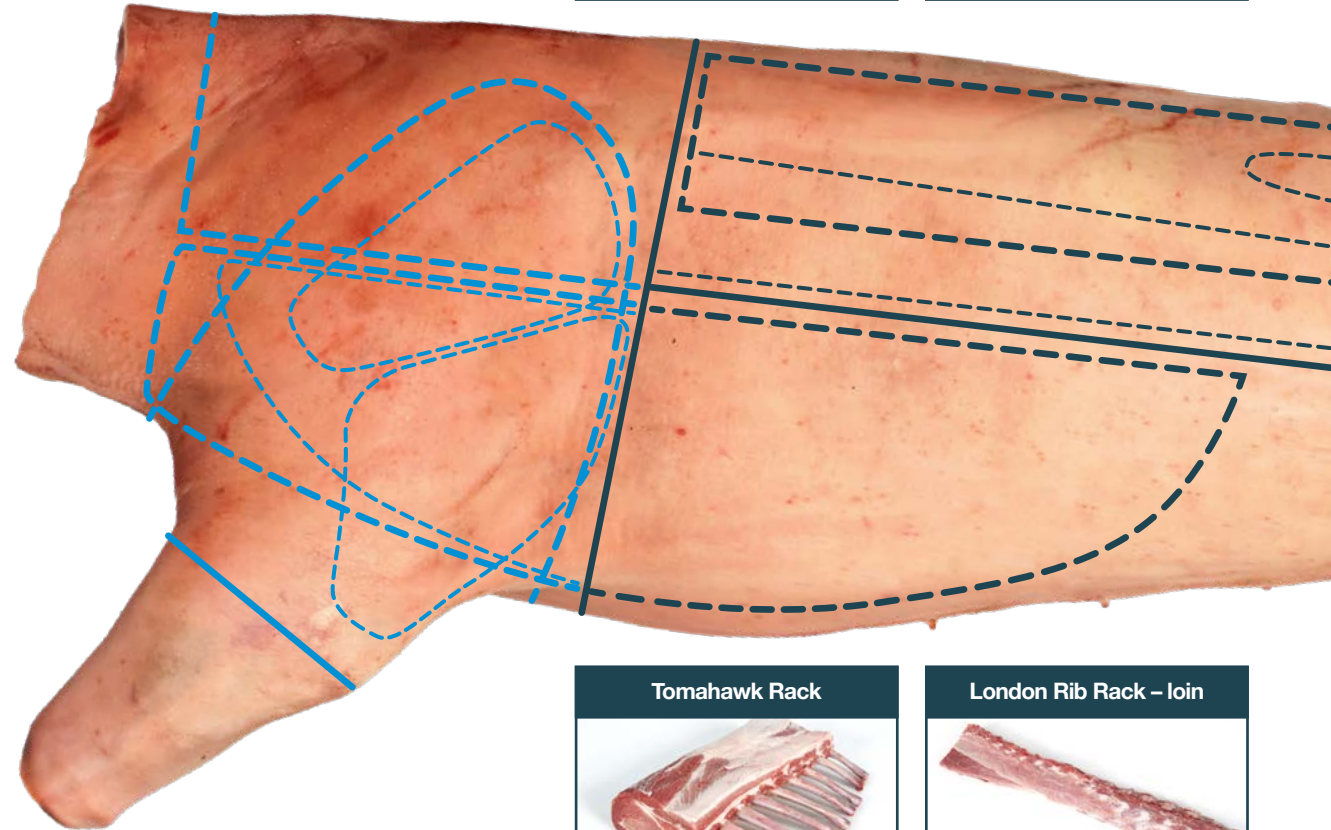
Shank – Forequarter



Middle



Loin



Tomahawk Rack



London Rib Rack – loin

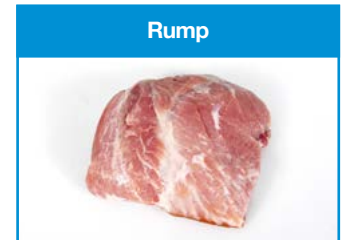
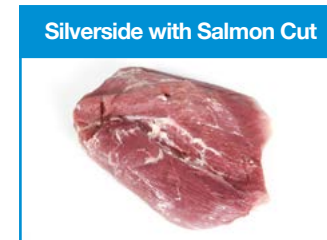
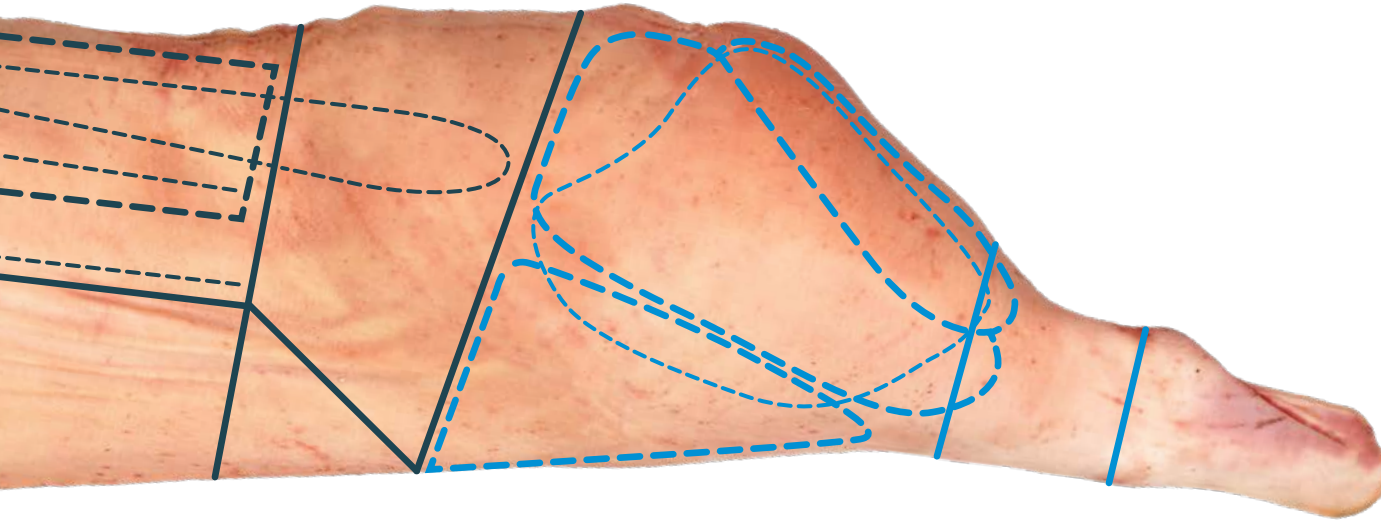


Gloucester Ribs Rack

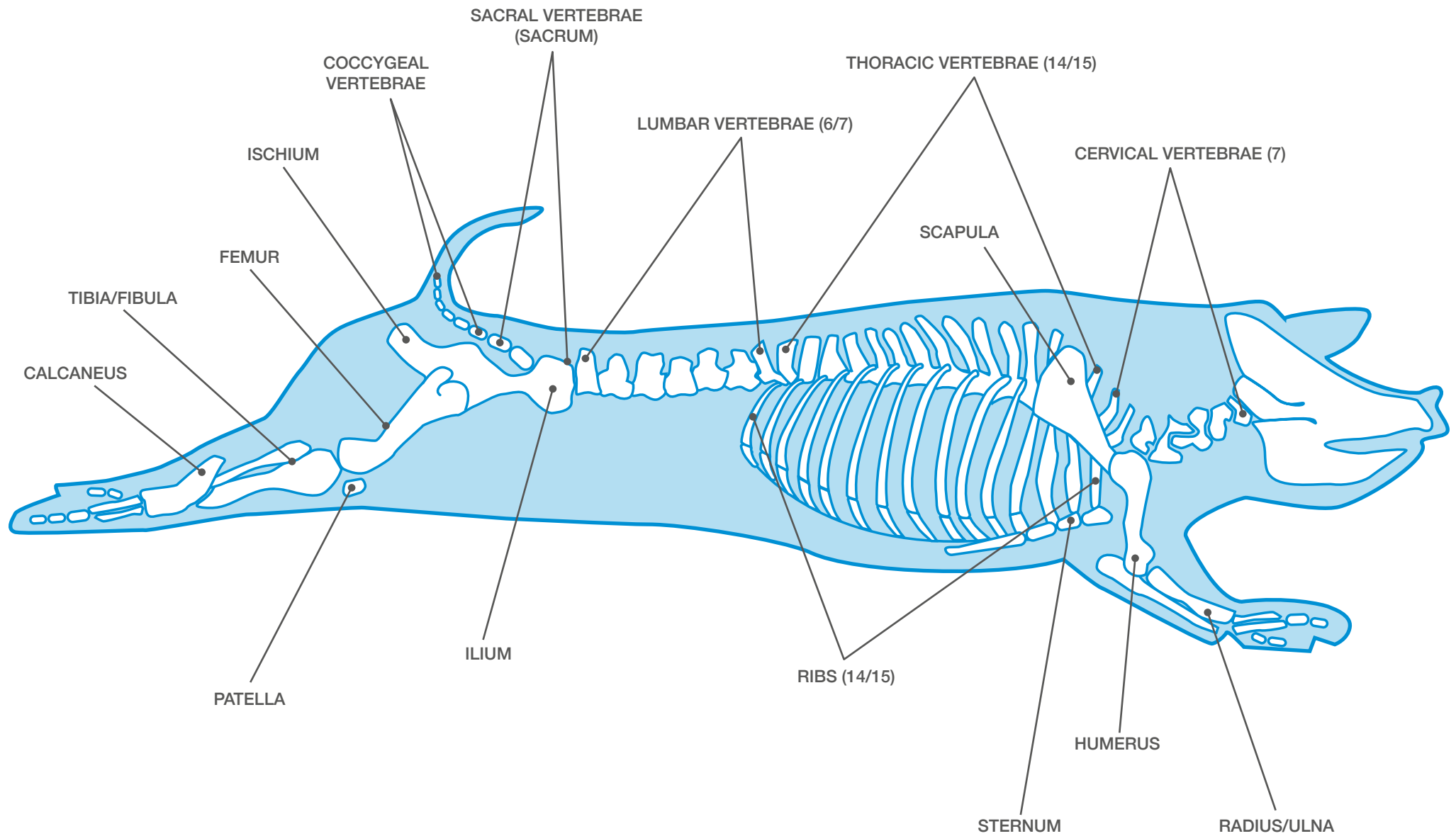


Spare Rib – loin

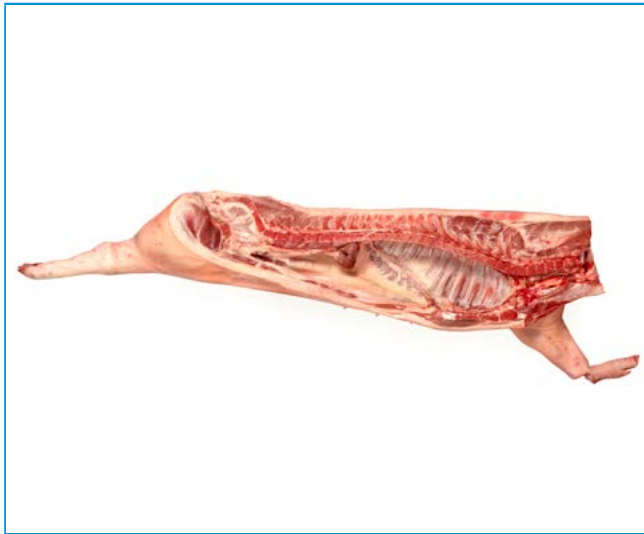




Pork bone structure



Pork carcass cut into primals



1 Side of pork with head removed.



2 Place the carcass on a cutting table and ...



3 ... remove the kidney.



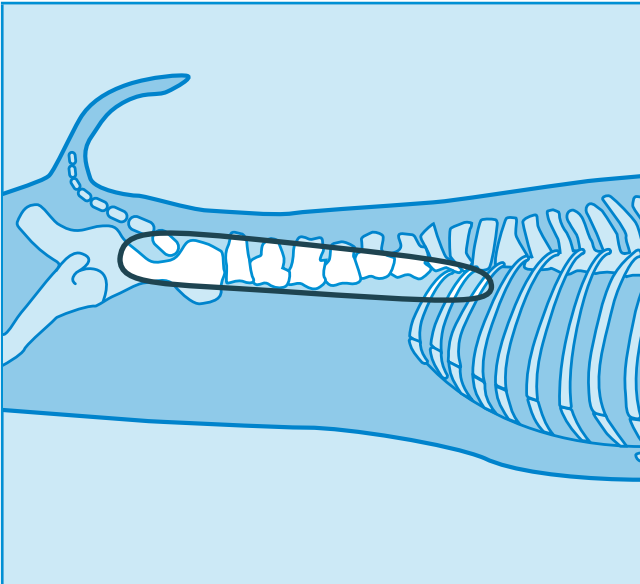
4 Remove the layer of flare fat from the inside of the belly ...



5 ... by pulling and cutting, taking care not to cut into underlying muscles.



6 Flare fat from the inside of the belly.



7 Position of the fillet.



8 Following the contours of the backbone ...



9 ... loosen the fillet ...



10 ... all the way towards the hip bone.



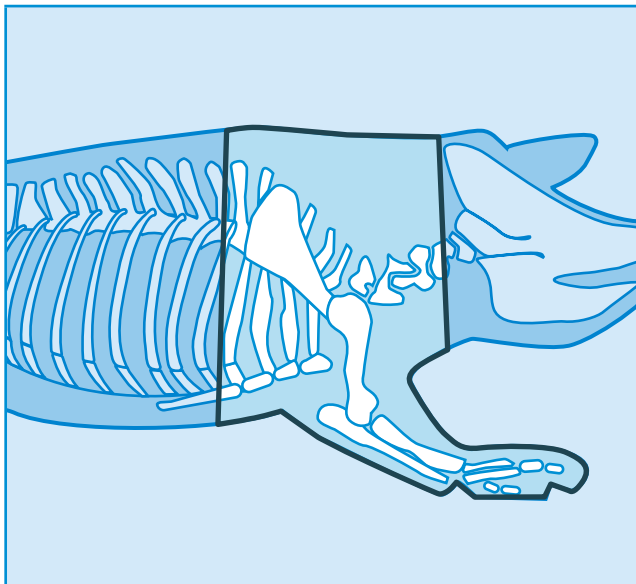
11 Starting with the head of the fillet ...



12 Cut and lift to remove the fillet.



13 Fillet of pork untrimmed



14 Position of the forequarter.



15 Make a mark between the 4th and 5th rib in the centre of the ribcage.



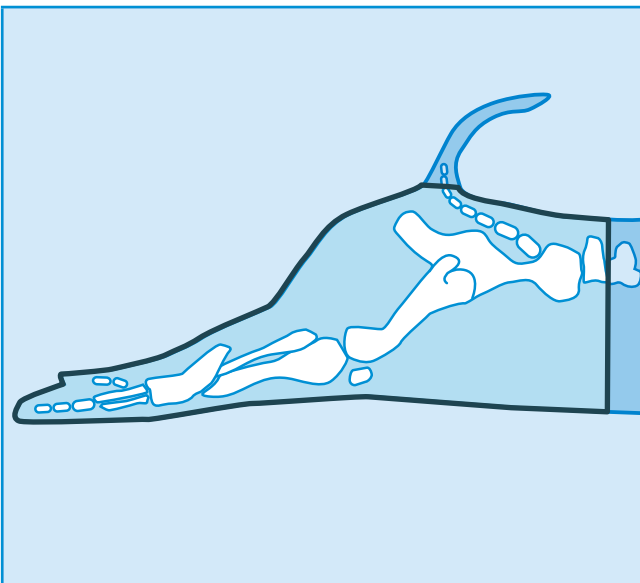
16 Followed by a mark in the centre of the 5th thoracic vertebrae. Draw a straight line and ...



17 ... remove the fore end by cutting and sawing at a right angle.



18 Fore end of pork, including the foot.



19 Position of the leg and chump.



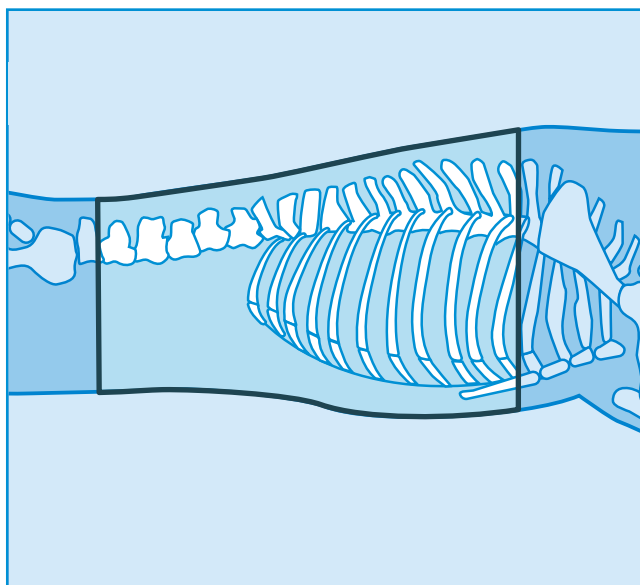
20 To remove the leg and chump, cut between the 5th and 6th (last two) lumbar vertebrae ...



21 ... and continue by cutting and sawing in a straight line.



22 Leg and chump.



23 Position of the middle.



24 Middle.



25 To separate the belly from the loin, make a mark 50 mm from the tip of the loin eye muscle ...



26 ... and draw a line following the back line of the carcass ...



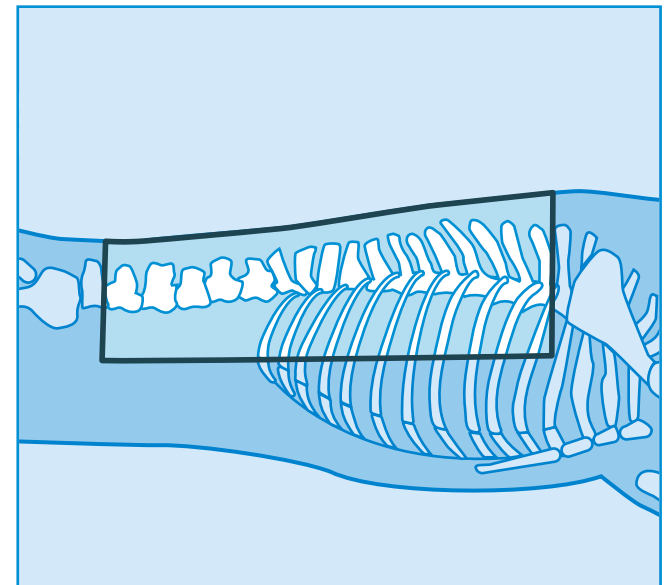
27 ... towards the lumbar section of the loin.



28 Following the line, saw through the rib bones ...



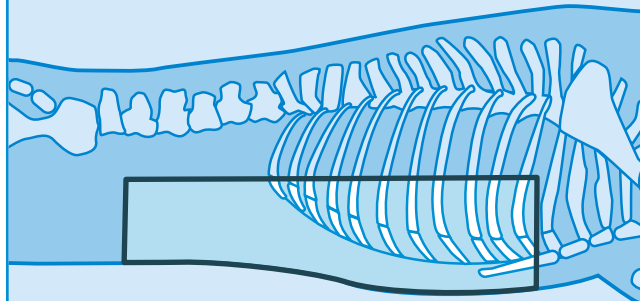
29 ... and cut through the meat and fat layers to separate the loin from the belly.



30 Position of the loin.



31 Loin.



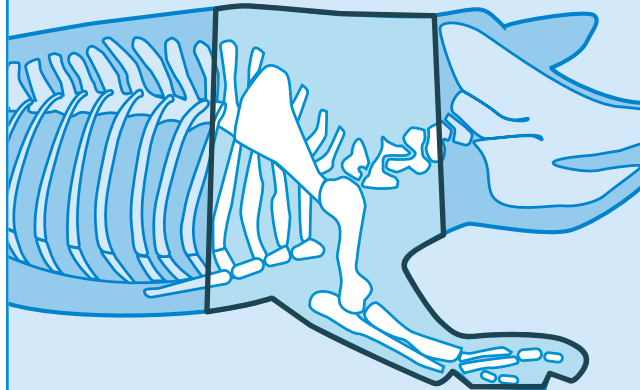
32 Position of the belly.



33 Remove the diaphragm from the belly.



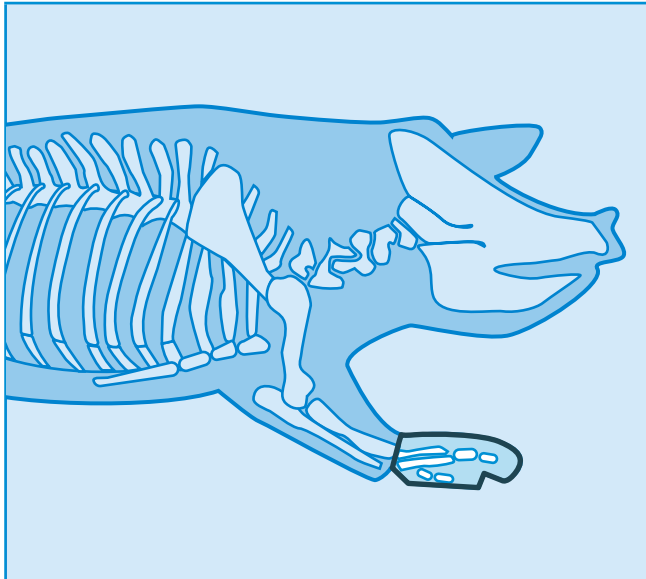
34 Belly.



35 Position of the forequarter.



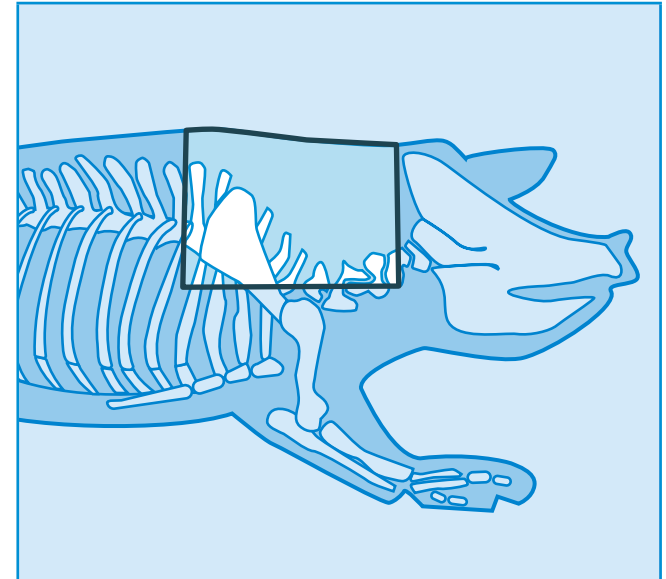
36 Forequarter of pork.



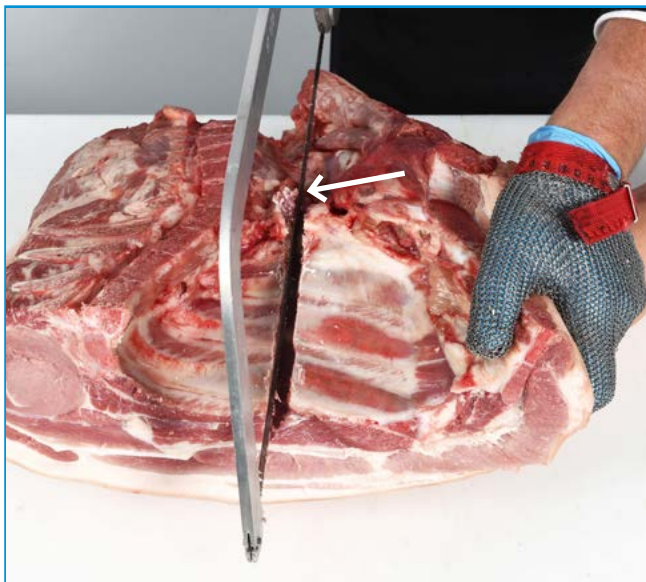
37 Position of the foot



38 Remove the foot at the joint as illustrated.



39 Position of the collar.



40 Make a mark on the first rib 10 mm from the edge of the neck bone, and cut and saw through the rib bones parallel with the backline.



41 Remove the collar by following the natural seams ...



42 ... trying not to cut into the muscle. Continue following the seams leaving ...



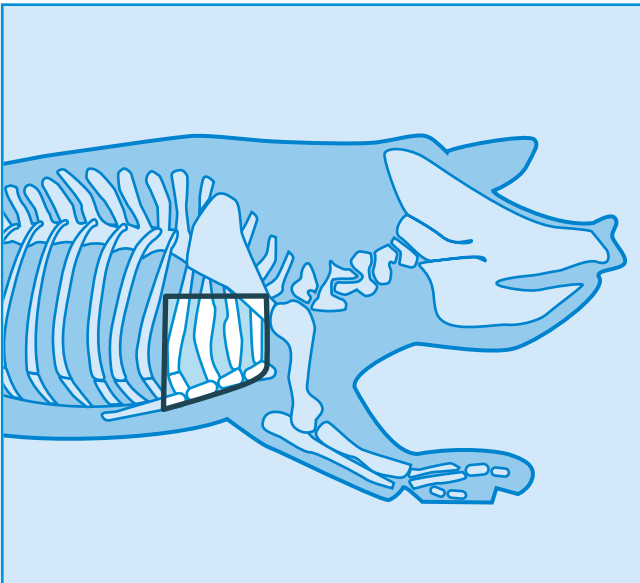
43 ... the backfat on the shoulder block until the collar is separated from the shoulder.



44 Collar of Pork – bone-in.



45 Collar of Pork – bone-in.



46 Position of the shoulder ribs.



47 After removing the collar, remove the shoulder rib section by following the natural seam ...



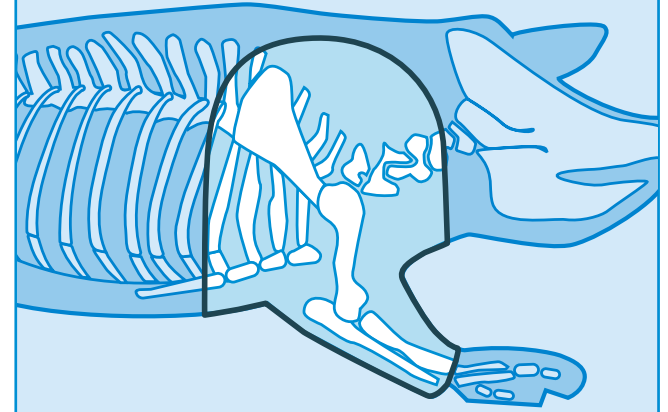
48 ... taking care not to cut into the brisket muscle.



49 Shoulder Ribs.



50 Shoulder Ribs



51 Position of the shoulder – round



52 Remove the excess fat and rind by following the contour of the shoulder.



53 Shoulder – round



54 Shoulder – round

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ISBN: 978-1-911181-04-0

