

With thanks to the RFU (England) National Coaching Department.



BUILDING a SAFE TECHNIQUE at the SCRUM

This guide is designed to show coaches, players and referees a safe and effective method of building a scrum. It demonstrates the simple one v one scrummage right through to eight person scrums.

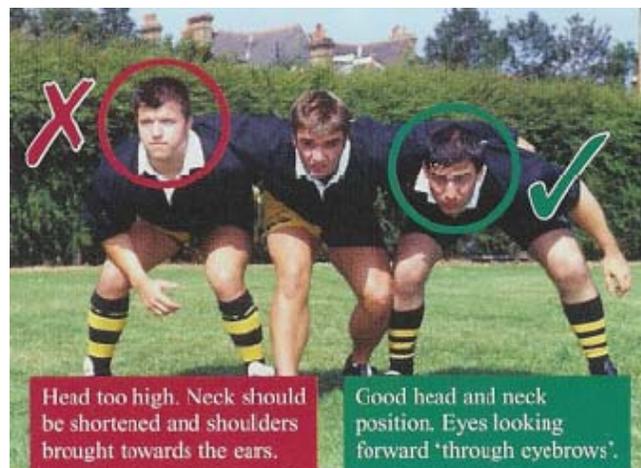
SCRUMMAGING SHAPE

The scrum is a technical component of rugby union where forces are generated and transferred through players' bodies against other players' bodies. All participants need to understand the correct techniques involved in generating, transferring and resisting these forces.

The starting point is to understand the INDIVIDUAL BODY SHAPE required to achieve this. It is believed that over 95% of all scrummaging problems can be related directly to the body shape of participants. Body shape should remain consistent for all participants involved in the scrum, no matter what position they hold, from front row through to Number 8.

A number of points to consider when coaching the correct body shape include:

1. A strong, balanced and stable base, which can be achieved by placing the feet approximately shoulder-width apart and toes level (this only differs for the hooker). This will ensure stability of the scrum whilst also creating an excellent platform to generate power.
2. If placement of the feet greatly exceeds the recommended shoulder-width guidance, there is a substantial reduction in the capacity to generate and resist force, increasing the risk of injury. Toes, knees, hips and shoulders should be square and all facing forwards. (The props may move their outside feet slightly forward by 10-15cm if they feel more comfortable).
3. Eyes should look forward. Look 'through the eyebrows' as if looking over the top of spectacles. The old adage of 'head up' can actually place the neck in a weaker position.

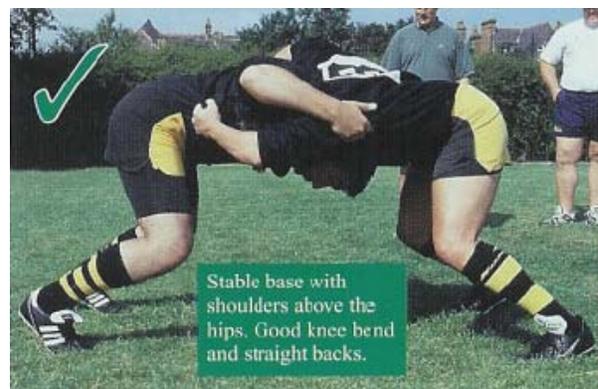
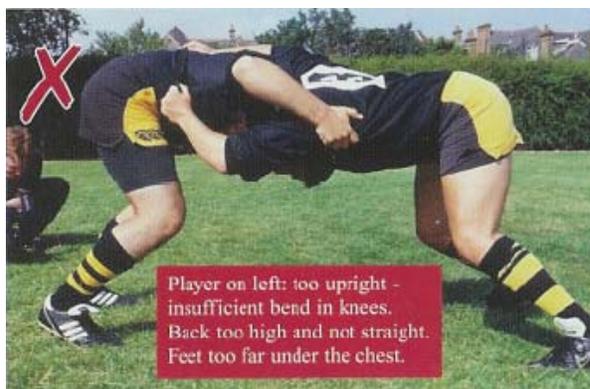


BUILDING a SAFE TECHNIQUE at the SCRUM

4. Shorten the neck. Bring the shoulders towards the ears. A short neck aids the transfer of power through the whole body and protects the vulnerability of the neck from serious injury.
5. Knee bend (approximately 100-110 degrees) directly beneath hips will assist in generating and transferring weight. Knees should remain directly in line with the toes and hips. The outside feet of props may be slightly forward to aid comfort and stability.
6. A straight back (parallel to the ground) will allow the forces, generated by the lower body and the other players, to transfer directly ahead through the opposition scrum.
7. Push the chest out - get the feeling that you are trying to pop the jersey button. Draw the shoulder blades together to produce a strong, flat upper back.

Practice scrummaging one v one, encourage players to get comfortable, and let players experience flexibility and stability by moving around. For example, a good practice is to ask the players to scrummage together and move them round in a circle forwards and backwards, keeping their feet apart so that they have a stable base at all times. Practice lowering so that their knees touch the ground without the shoulders dropping below the hips. Practice scrummaging three v three, five v five and eventually eight person scrums, but do not progress until the players are confident about the previous step.

Coaches must ensure that players are wearing the correct IRB approved footwear, i.e. strong and correctly studded boots.



FRONT ROW

FORMING A FRONT ROW

Front row players should not assemble directly opposite their opponents, but opposite the slot that they will move into on the engagement. This is referred to as 'offsetting' and will ensure that, when engaging, the majority of force generated will be absorbed through the shoulders rather than the head or neck.

Practice scrum engagement initially with only front rows, following the same sequence of events as for an eight-man scrum. Heads go to the left of the opposition player. Prior to engagement the front row must focus on the target area where their heads and shoulders will make contact with their opponents.

**As from January 1, 2007 the IRB has directed all referees to form all scrums (irrespective of the age of the players) with a four - phase sequence:
Crouch - Touch - Pause - Engage.**

Please refer to the IRB instructional Video/CD produced at the time of this Law modification (to be released late December 2006).

FORMATION

ROLE OF THE HOOKER

- To strike for the ball
- To bind together with the props
- To help keep the front row stable

ROLE OF PROPS

- To provide a push
- To transmit power
- To provide stability
- To bind together with hooker
- To support the hooker

THE THROW-IN

The scrum half must throw in the ball to the scrum without delay after the front rows have engaged. He/she must hold the ball with both hands, with its major axis parallel to the ground and to the touchline over the middle line between the two front rows, midway between the knee and ankle. The hooker can strike it with the broad side of the foot and can strike when the ball leaves the scrum half's hands. The scrum half should stand with his/her forwards on his/her right.

THE LAW STATES THAT:

- The scrum half must stand one meter from the scrum
- The ball must be held between the knee and ankle
- In releasing the ball, there must be no feigning or dummy action
- The ball must touch the ground in the tunnel on a line midway through the tunnel

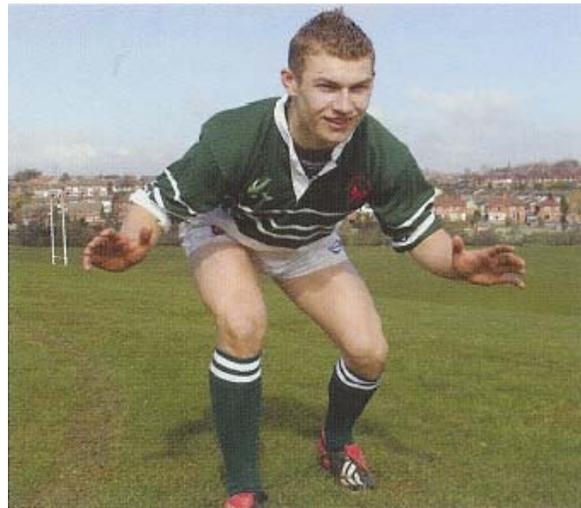
FRONT ROW

HOOKER (NUMBER 2)

The hooker is the centre of the scrum and consequently the organizer (captain) who, through action and instruction, builds the scrum around him or herself. The hooker is the first to the 'mark of infringement' and should take ownership by placing the strike foot on the mark.

Listed below are a number of points for hookers to consider:

1. Assume the leadership role of the scrum activity.
2. Take ownership of the mark - place your strike foot on the mark and do not move.
3. Adopt a narrow stance (feet close together) with strike foot slightly (10-15cm) in front of your rear foot. This narrow stance will not only allow the props to anchor but will leave enough room for the locks to secure their heads between you and the props.
4. Place your hands on your head, chin off chest and look forward.
5. Set up in a crouch position before binding to the props.



LOOSE-HEAD PROP (NUMBER 1)

The loose-head prop is the first to join the hooker in assembling the scrum. This prop is referred to as 'loose' because his/her head placement is outside that of the opposition prop opposing him/her and consequently impact is only on his/her right shoulder.

Listed below are a number of points for loose-head props to consider:

1. Approach from behind the hooker.
2. Stand behind the hooker and make a bind with your right hand on the front of the hooker's jersey between the armpit and sternum (breast bone), depending on the length of arm or build of the hooker.

3. Move around the hooker to the left into the left foot scrummage position, making sure your feet are not overlapped with the hooker's and that you are hip to hip with the hooker. Ensure your feet are facing forwards.
4. Drop your left arm across your body and point it at the hooker's right foot. This will enable the hooker to bind onto you under the left armpit.
5. Once the hooker has a tight grip, push your right shoulder forwards under the hooker's left armpit so that there are four shoulders in line facing forward. This action will tighten the bind.
6. Place your feet shoulder-width apart and adjacent to each other. Your outside foot may be 5-10cm slightly forward for balance and comfort.
7. DO NOT hide your shoulder - remain square with your toes, knees, hips and shoulder all facing forward.

TIGHT-HEAD PROP (NUMBER 3)

The tight-head prop is the next player in the scrum assembly process and should bind onto the other side (right) of the hooker. This prop is referred to as 'tight' as his/her head placement on engagement is between the opposing prop and hooker. Listed below are a number of points for tight-head props to consider:

1. Approach from behind the hooker.
2. Stand behind the hooker and make a bind with your left hand on the waistband of the hooker's shorts between the drawstring and the pocket, depending on the length of arm or build of the hooker.
3. Move around the hooker to the right into the right foot scrummage position, making sure your feet are not overlapped with the hooker's and that you are hip to hip with the hooker. Ensure your feet are facing forwards.
4. Drop your right arm across your body and point it at the hooker's left foot. This will enable the hooker to bind onto you under the right armpit.
5. Once the hooker has a tight grip, push your left shoulder forwards under the hooker's right armpit so that there are six shoulders in line facing forward. This action will tighten the bind.
6. It is important to ensure that the shoulders, hips and feet of all three players are facing forward and are not overlapped.
7. DO NOT extend further than is comfortable. Remain square with toes, knees, hips and shoulders all facing forward.

N.B. The hooker should bind over the shoulders and under the armpit of both the tight-head prop and the loose-head prop.



As players become used to the technique, they will know how far round to grip a given player to make the bind tight. It is important that both of the props only turn their upper body, not their whole stance, and push their shoulders through after the hooker has bound. This will ensure that the props' spines end up parallel to the touchline, in line with the direction of the push.

FIVE PERSON SCRUM

FORMING A FIVE PERSON SCRUM

(i.e. adding two second row players to the front row)

Once the front row is confident with their binding and engagement sequence, the second row can be introduced,

ROLE OF THE SECOND ROW

- To bind the front five together
- To transmit power (drive) through the front row

SECOND ROW BINDING (NUMBERS 4 & 5)

Experienced players

The second rows bind around each other strongly with the inside arm and through the props' legs, with the binding as close to their own ear as possible, with the elbow up and gripping the props' shorts, not shirts. During the formation stage they may have their inside knee touching the ground, with both knees flexed, or crouched with both knees off the ground.

ALTERNATIVE BINDING SEQUENCE

The second row should bind onto the props before they bind together, as follows:

1. Approach from the outside of the prop in front of you.
2. Take a grip on the top and the front of the prop's shorts, then rotate around to the shoulder support, allowing your grip to slide if need be. This should eliminate having to apply pressure and movement onto the prop by reaching forward in an attempt to close the gap.
3. It is important that there is no gap between the shoulders, arm and head of yourself and the prop.
4. Once bound onto the prop in front and having achieved the correct shoulder position, you should place your head between the hips of the hooker and prop.
5. Toes should be pointing directly forward.
6. Look forward at all times and DO NOT lean on the front row until engagement.



The second row players do not exert any pressure onto the front row prior to contact. As the front row engages they follow the movement forward, thereby coming into a good pushing position.

FIVE PERSON SCRUM

SECOND ROW BINDING

Inexperienced players

The second rows bind around each other strongly with the inside arm, and around the hips of the props.

During the formation stage they have their inside knee touching the ground, with hips together and both knees flexed.



EIGHT PERSON SCRUM

BUILDING THE BACK ROW

The back row consists of two breakaway players (the flankers) who bind onto the side of the scrum parallel to the locks, and a Number 8 who binds onto and provides support behind the locks. It is crucial that players in the back row understand the importance of actively assisting in generating and resisting forces within the scrum activity as opposed to merely binding on and providing no or little resistance.

Essentially, the scrum consists of two strong units (prop, lock and flanker) bound together at the front by the hooker and at the back by the Number 8.



EIGHT PERSON SCRUM

ADDING FLANKERS AND NUMBER 8

Once the front five are confident with their binding and engagement sequence, the five-man scrum can be developed into the full eight-man scrum by introducing number eight and two flankers.



FLANKERS (NUMBERS 6 & 7)

The primary focus of the flankers is to provide a solid shoulder support to the backside of the props, similar to that of the locks' main objectives. The body shape of the flankers should be identical to that of the locks adjacent to them.

Listed below are a number of points for flankers to consider:

1. Toes, knees, hips and shoulders should be all square and facing forward.
2. Bind over the back of the adjacent lock and make good shoulder contact on the outside hip of the corresponding prop in front.
3. DO NOT push, twist or angle in or out throughout the assembly and engagement phases of the scrum activity.

NUMBER 8

It is important that the Number 8 provides a solid shoulder support to the backside of the locks and assists in driving forward after engagement. The Number 8 should assume the same body position as that of the locks and flankers, with a strong base and flat back. Listed below are a number of points for Number 8s to consider:

1. Toes, knees, hips and shoulders should be all square and facing forward.
2. Bind around the waists of the locks.

All positions should be bound at the same height, pulling each other back on to the supporting shoulder and going forward together.

EIGHT PERSON SCRUM

SCRUM ASSEMBLY – SUMMARY

A team should have a set procedure for assembling the front row and scrum. The following is recommended: once the mark is established, the hooker should be the first in position, followed by the loose-head prop, tight-head prop, locks, flankers and finally the Number 8. This sequence is illustrated below:

FORMATION

- Fronts rows arms-length apart
- Feet shoulder-width apart
- Feet, hips and shoulders parallel
- Bind tightly
- Knees flexed
- Front row form first, followed by second row and finally back row

CROUCH – TOUCH - PAUSE

(NB This incorporates the IRB Scrum Law Modification – January 1, 2007)

- Knees slightly bent (sitting crouch)
- Upper body inclined from the hip
- Shoulders above hips
- Weight on balls of feet
- Balanced, awaiting next instruction from referee

ENGAGEMENT SEQUENCE

The engagement is the most important feature in the scrum when dealing with safety and injury prevention. It is for this reason that all players **MUST** follow the referee's calls and apply all the correct techniques. When engaging, the head should be looking forward for the spot to engage and should be 'offset' (head in line with shoulder) and not directly in line with the opposition player's head. The chest should be pushed through and the shoulders square.

The engagement sequence includes:

Crouch - Touch - Pause - Engage.

Please also refer to the IRB instructional Video/CD produced at the time of this Law modification (to be released late December 2006).

EIGHT PERSON SCRUM



Crouch - The assembled scrum prepares for engagement by crouching (lowering the height of the scrum). It is important to note that the shoulders should NEVER become lower than the hips. All members involved should tighten their grips (drawing the binds) and ensure that their weight is on the balls of their feet.

Touch – Pause - The props must touch their opponents' upper arms to judge the distance before lowering their arms and preparing for engagement. Eyes should look forward (through the eyebrows), concentrating on the target for engagement.



Hold - This refers to holding the crouch position still, thus ensuring that the scrum is stable prior to engagement. The front row must concentrate on their targets and ensure that their heads and chins are up.



Engage - The back five in the scrum should drive the front row firmly into the opposition, maintaining good shoulder contact. Props must take an outside bind on the opposite player and draw him/her in towards themselves. A scrum should adopt a 'hit and stick' approach with little foot movement after engagement. Unless the scrum is securely bound prior to contact,

the engagement will have a concertina effect, i.e. the front row will engage, followed by the second row and then the back row. This can be dangerous in that the scrum becomes totally unstable.

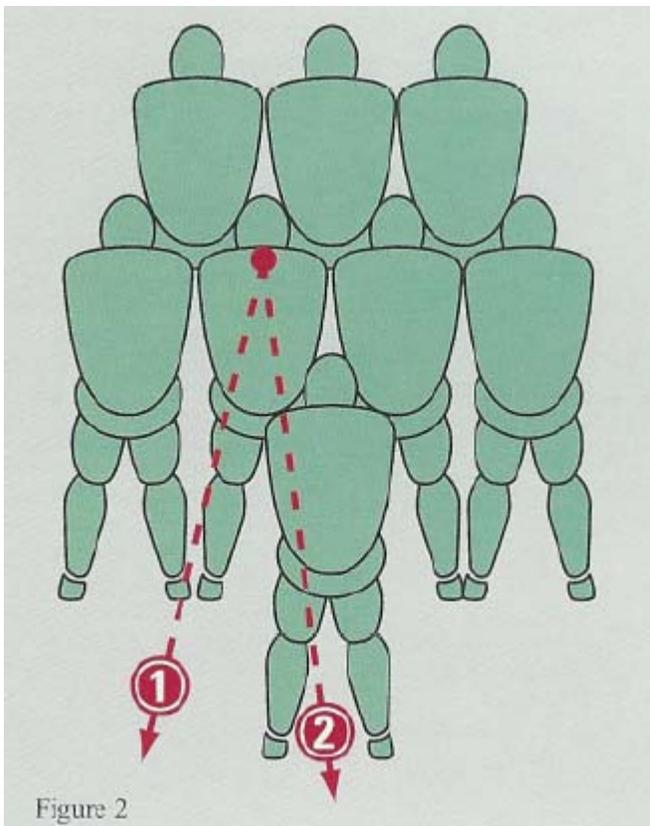
EIGHT PERSON SCRUM

BALL DISTRIBUTION

Channel 1 - The ball travels down the inner left side of the scrum to the left of the Number 8. It is a quick strike with the intention of clearing the ball quickly.

Channel 2 - A quick strike is followed by the ball being directed down the middle of the scrum. The ball should be under control at all times. This is probably the most common channel used.

The two channels for ball distribution are clearly identified in Figure 2.



PROBLEM SOLVING

PROBLEM SOLVING FOR SCRUMMAGING

POSITION	PROBLEM	COMMENTS	SUGGESTIONS
HOKER	Striking with (left) closest foot.	The reasoning behind striking with the closest foot is that it supposedly gives the striker a closer and therefore quicker shot at the ball. Whilst this could be used occasionally on an opposition feed, it is more productive to strike with a sweeping motion to gain better control of the ball. As a hooker progresses to higher levels of rugby, the movement of the ball into the different channels is vital and demands a good deal of skill.	Ensure that the hooker's left foot is back in line with the loose-head prop. The hooker should slightly twist his/her left foot so his/her toes are facing the ball. This will allow him/her to easily strike with the right foot.
PROPS (Tight-head and loose-head)	Binding too tightly with hooker.	Both props should not turn or twist the hooker into too tight a bind, as this not only limits the hooker's ability to strike but also has the added effect of illegally 'burying' or 'hiding' the props' shoulders.	Ensure that all shoulders are out (exposed). All props should be square on and have slightly loosened grips. Grips will naturally tighten once the wrists are rolled on engagement.
LOCKS	Locks unable to place head between prop and hooker. Props not receiving sufficient support from locks.	If the hooker is too tight with the prop, the locks might have some difficulty is positioning their heads between the prop and the hooker. Check that the grips are tight and the lock's arm is taking up the full spread of the prop's backside (ensure there is a solid contact with the prop's buttocks). The smaller the gap between a lock's arm and the prop, the better the support. Ensure that the lock is not binding onto the prop's thigh area.	Each prop should twist his/her pelvis without moving their feet and then back once the locks have joined. Alternatively, the locks should position their heads between the prop and hooker at knee height and then move their heads up to hip height. Locks should assemble by inserting a thumb into the top/front of the prop's shorts and then assuming their position. This will allow the thumb to slide if it is too far around. Once in position, the lock should grip the shorts and twist his/her wrist upwards.

PROBLEM SOLVING

PROBLEM SOLVING FOR SCRUMMAGING

BACK ROW	Number 8 not being able to bind onto locks.	The Number 8 is practically the only player who can visualize the body height of any of the participants in the scrum. He/she therefore holds the responsibility for correcting any deficiencies prior to engagement.	Emphasize the need for the Number 8 to not only bind the locks together, but to also provide more support by pulling them back onto his/her shoulders.
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ACKNOWLEDGEMENTS

RUGBY CANADA would like to thank the Rugby Football Union (England) for permission in using this template.

Kind regards

*Martin Gallagher
Director of Rugby - Rugby Canada*

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