

Health and safety warning and advice

Playing in the front row can damage your health. Whilst the guardians of the game have taken steps to reduce scrum injuries, it is in the nature of the game of rugby and in particular the physical requirements of scrummaging that injuries can and do occur. There are no internationally agreed guidelines to help ensure a safer environment for training and playing in the front row. These 10 points summarise good practice from around the world to make scrummaging as safe as possible.

1. Never force a player to play in the front row. Forcing includes heavy persuasion. If a player is not mentally prepared to play in this position then they are very unlikely to be physically prepared.
2. Ensure a good warm up before any scrum activity. This should include neck and shoulder exercises and back stretches.
3. Ideally the first few bouts of contact will be under very controlled conditions. Front rows should “fold in” to contact. One-on-one is preferable before full scrummaging.
4. The principle of front row engagement is always: hips below shoulders.
5. There should never be any attempt to “drop” the scrum by pulling down the opponent.
6. Know the laws of the front row (Law 20) – many of the aspects are concerned with maintaining a stable platform to reduce the chances of injury. (See Chapter 11 – The Laws, for a summary.)
7. In practices, match your players sensibly, taking into account size, experience and age. Size does not always equal strength.
8. Always follow the country guidelines on age group front row combinations (for example some unions suggest that one on one training should not happen until players are aged 16 and above. This is because the players are not strong enough to be balanced. Instead use 2v2 or more.
9. Be cautious first, but make sure your players are confident with how to play their respective positions.
10. Scrum collapse safety procedure: Players should drop to their knees before their head reaches the ground, immediately release their arms to absorb the weight on their elbow and forearm.

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Foreword by John Mallett

It is sometimes said that front row players are born, not made. Anyone who saw me as a baby might disagree with this. Although some players are the “right shape” to play prop or hooker, the truth is you never stop learning. Andrew Sheridan’s conversion, from back row to propping super hero is a great example of learning the new skills – yes, he has immense strength, but it has taken him three years to make the conversion.

Experience counts for so much. Playing with and against some of the world’s best, you soon understand that there is so much more you can gain. All these “experiences”, some more painful than others, add to your toolbox. This means next time you come up against a similar prop or hooker, you have that little bit more know-how to deal with the situation.

Secrets of the Front Row has been meticulously researched, and Dan Cottrell has spoken to players from all levels of the game to give the real inside story on playing in the front row. It is not just a guide for the specialists – it will also be a vital tool for those coaches who have not had much exposure to this “dark world”.

As identified in this far-reaching coaching document, the intricacies of front row play become extremely complicated. However, as with the whole game of rugby I firmly believe it is crucial to coach the basics. For any player of any age these are the essential building blocks for effective front row play. There is often a temptation to head straight for the complex hand position or foot placement, but these are the icing on the cake. Good front rowers need more cake and less icing, and this report delivers the ingredients.

As to my secrets? See pages 30, 36, and 40.

John Mallett
Former Bath and England tight-head prop
Head of 1st XV Rugby, Millfield School

Introduction – Secrets of the Brotherhood

“An experienced hooker, Keith Pacey, could put so much pressure on you, downwards and across, with his shoulders and neck that he could bend you double. He bent me every which way and I had no idea how to get out. Afterwards, I asked Pacey how he did it. ‘I can’t tell you’ he said. ‘Otherwise you’ll know for next time’ ”.*

This report reveals the secrets of the front row – so you’ll know for next time.

*Brian Moore: The Autobiography, Brian Moore and Stephen Jones, Corgi Books 1996.

It is a dark and sometimes scary place. Pressed hard against the opposition in the bowels of the scrum, the front row bears the brunt of the entire pack. Front row players are bound together by muscle, determination and aggression. What they also have in common is loyalty, respect for each other, and a concern for safety that stems from their unique battling role.

This is the private world of the front row that is something of an enigma – many say a game within a game. In researching this report, I also discovered a brotherhood of hookers and props who speak a language of their own – as well as uncovering secrets and tips about their roles that have never been published.

Whether in a bar or on a street, when I asked a front row forward a question about technique, I was likely to be packing down with them there and then – being bent this way and that – just so I understood how it works.

Front row players stick together. Scrummaging is their bread and butter, and a source of considerable pride. **“We could win the game but lose the scrums,”** says Rob Ambler of Cranleigh Rugby Club in Surrey, a hooker, man and boy. **“I am not sure we would always be happy with that situation”.**

The front row has its own mindset – sayings and mantras that help focus the mind for the contest. **“Walk to lineouts, run to scrums”** tells us that the front row sets huge store in the scrummage contest. And it makes sense, too. A front row that is set first is better prepared, mentally and physically, for the challenge.

But it is not just physical victory that matters to the front row brotherhood. What comes across strongly is an overriding commitment to safety. Hard they may be, but front row players are bright enough to know that one slip could mean bad news for a team-mate, the opposition or even themselves.

Props and hookers must know the limits of their bodies, and the limits of scrummaging. Good feet, low hips, and square shoulders are not only the right way to win ball, they are the fundamentals that underpin a safer scrum. If you have not done so already, please read the health and safety information at the front of this report, which sets out the factors that must be taken into consideration before scrummaging.

Yet despite the safety issues, and the worries about falling number of youngsters volunteering to be front row forwards, you can tell from the excitement among props and hookers what a fantastic experience it is to play in these positions.

In seeking to produce a wide-ranging manual of the front row, its strategies and techniques, I could not ignore the subject of cheating. Front rows face all sorts of legal and illegal situations. No one should condone cheating, but you need to know what form it may take and how to deal with the perpetrators.

I have relied on scores of sources – personal interviews with top players and club players, books, videos and websites from around the world. In particular, I would like to thank my friend and former teaching colleague Dan Pullen, an experienced prop who guided me intelligently through the technical aspects.

Secrets of the Front Row draws on a full range of experiences – from international players to those with years at their local club – in an effort to provide a rounded and balanced picture of best practice. Whether you are a front row player or a coach, my goal is to improve the effectiveness of your front row play – by offering you the secrets that it would usually take years to discover.

Dan Cottrell

1 The Hooker

Ideal characteristics for a hooker

- Right footed!
- Not perhaps as tall as other front players in that team.
- Reasonably flexible.
- Aggressive.
- Ability to take charge of the front row.

Mental targets for your put in

- The clear objective is a clean strike – the onus is on the hooker to organise the props to allow this to happen. If the hooker is not happy with the set up, then the props must make the adjustments. The main adjustments to consider are: height, binding, and loose-head feet position.

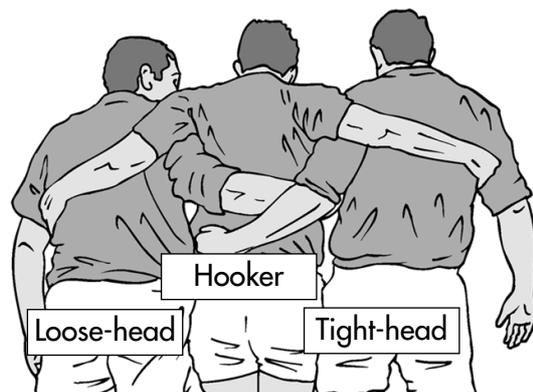
Mental targets for their put in

- There can be three objectives or targets when the opposition has the put in.
- Target one: disruption of opposition hooker by scrummaging on them.
 - Target two: strike at the ball if possible;
 - Target three: working with loose-head or tight-head to put specific pressure on a member of the opposition front row.
- might not win the ball but may reduce the effectiveness of the opposition strike.

Binding

- Bind over the two props.
- Try to get under armpits of props with grip.
- Feel as if you are pulling in the props.

The hooker is bound under the armpits of the two props.



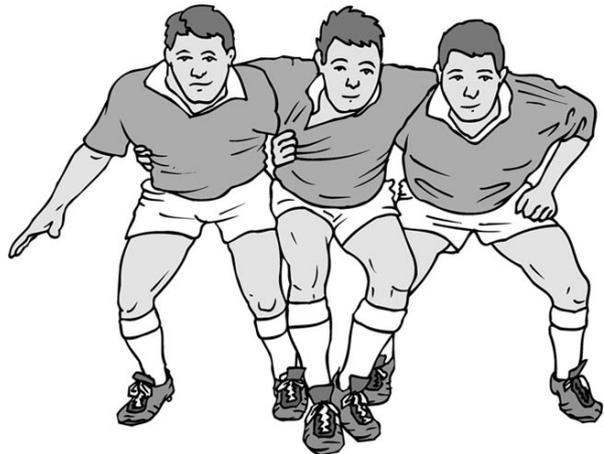
SECRETS

Binding

- When the hooker prepares to receive the props for binding, get the props to roll in (i.e. turn their shoulders inwards) and then once bound, puff their chests out and square their shoulders. This should lead to a tighter bind, but must not be too tight to prevent the hooker being comfortable and able to move.

Feet positions (your put in)

- Right foot in front of left foot for strike.
- Hips should be slightly angled towards the ball.
- Vast majority of weight on left foot.
- Unlike the props, hookers can move their feet around once the scrum has engagement. Hence some hookers will bind up and engagement in a sprint position with their feet and then bring the left foot further forward to give them a little more balance.



The hooker ready for the strike - right foot in front of left, more weight on the left foot.

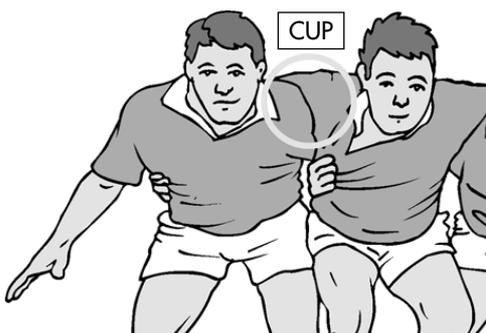
Feet positions (their put in)

- In the best position to push: feet parallel and back.
- "Scrummage like a tight-head" Rob Ambler, meaning, using the same foot and body position.
- Some hookers advocate putting the right leg forward to get flexibility with the type of shove. For instance if you were trying to focus on the opposition hooker or tight-head.

The head position

- The hooker should be in a position to see the ball to strike. Therefore the hooker should aim at the opposition hooker's right side, "the cup". This is where the shoulders of the opposition tight-head and hooker meet.
- Keeping the eyes open before impact is the key to avoiding injury and maximising impact.
- Some hookers scrunch their neck into their shoulders just before impact. It stops the head moving around and squares the shoulders.

"Hooker - keep your chin forward (head up) and right shoulder down on the back of the opposition's neck." David Judd, Chairman of Surrey Youth and former Harlequins hooker.



The cup, where the shoulders of the opposition tight-head and hooker meet. This should be the target for the hooker's head.

SECRETS

of hooking

- Hooker tries to arrive at scrummage first, but certainly sets first to indicate the mark. It is better to set the scrum before the opposition because it will help to show the opposition that the scrum is ready for the engagement. It is more intimidating to see a scrum that is set.
- Put tape on the hand that is used to signal to the scrum half when the hooker wants the put in. In the general

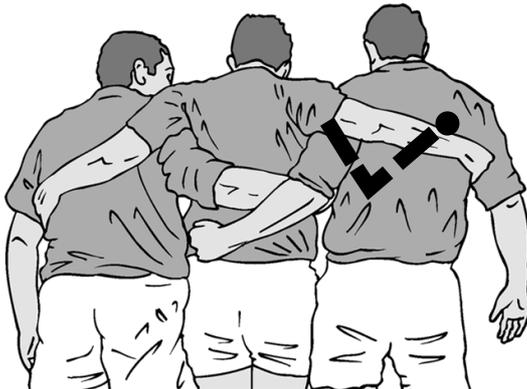
melee of a scrum, it is not always clear whose hand is whose and an opposition player could easily pre-empt the strike with a false signal.

- Peter Wheeler (former England hooker): shorten the right arm on the back of the tight-head (see illustration below) to allow more movement when trying to strike for the ball. (Quoted by Nigel Horton).

When under pressure

Option one: scrum half puts the ball in as soon as scrums engage.

Option two: insist to the referee that the scrum is settled before the ball is put in i.e. the opposition are not driving before the ball is put in.



Shorten the right arm on the back of the tight-head to allow for more movement when trying to strike for the ball.

Winning the ball against the head

- Drive the opposition straight off the ball; instead of striking for the ball, the hooker also pushes (eight man shove).
- If not under much pressure, hooker tries to strike with right foot.

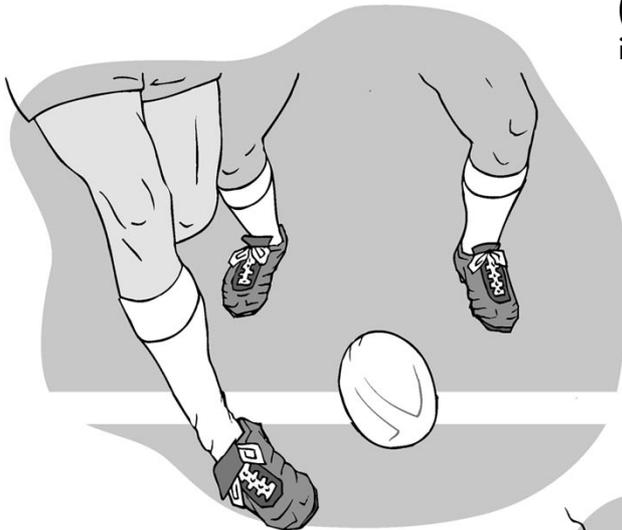
Striking (your put in)

Option one: right foot comes across in front of left and strikes the ball with the studs in a sweeping action. The hooker should watch the ball as far back into the scrum as possible, just in case the ball strikes the prop's legs and comes back into the tunnel or the ground is

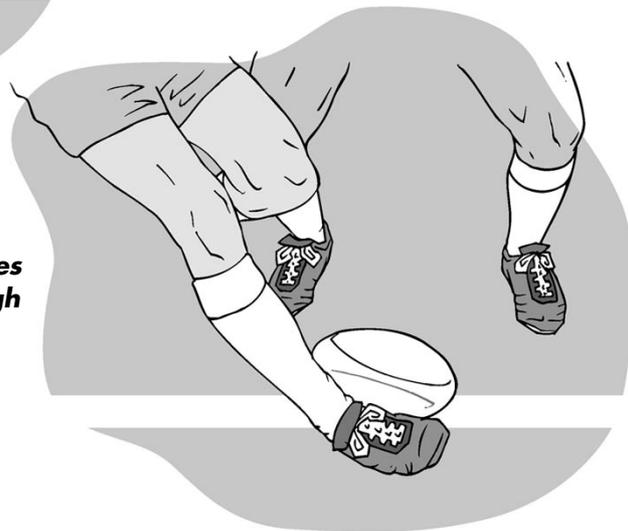
muddy. A secondary strike might then be required.

Option two: strike with left foot using the heel to pull the ball back; the feet must be parallel before the strike.

Option three: as the ball is put in, drop the hips to initiate the movement of the right foot (increase the reach, but needs to be done within a solid props base).



Hooker striking for the ball: the foot comes out and then sweeps the ball back through the loose-head prop's feet.

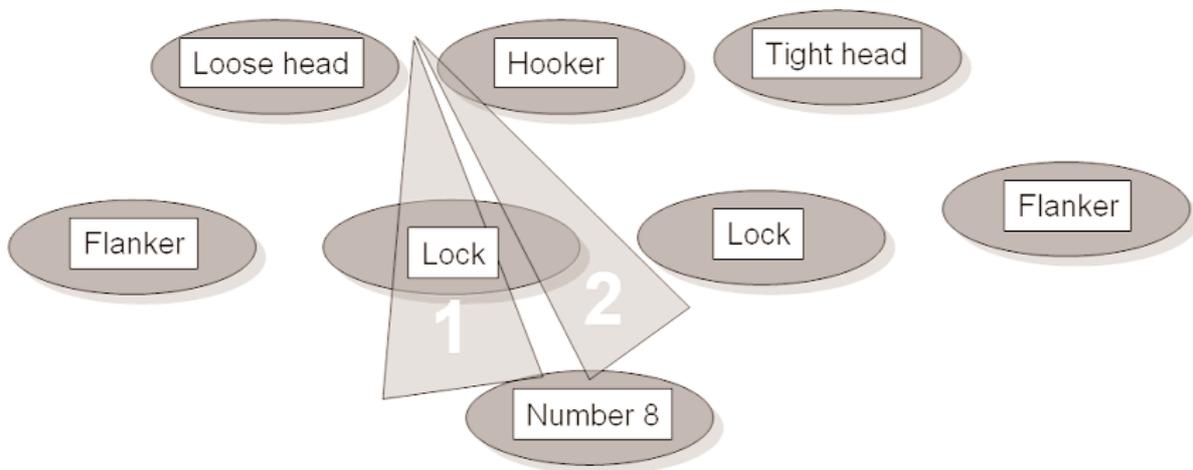


"Tell your scrum half he has got to remember to roll the ball in and not just drop it otherwise he makes you look a [prat]." Andy Wolstenhome, former Leicester and Blackheath hooker.

Channels

There are two channels that a hooker aims at:

- Channel one: the quickest ball for the scrum half/number 8 to use. The ball goes through the lock's legs to the left foot or outside the left foot of the number eight (depending if they pack down in between the locks or the loose-head lock and the left hand flanker).
- Channel two: it is a safer ball. It travels between the two locks' feet, to the middle of the number eight's feet. It is slower than channel one ball but very useful for pushover tries.



Communication between the hooker and scrum half for own put in

- Scrum half puts ball in a position to below their knees (showing the ball to the hooker that they are ready) or he can tap the hooker on the hand with the ball (this can cause problems because it might give a signal to the other side).
- Normally the hooker will then signal to the scrum half to put the ball in with a tap of the left hand on the loose heads shoulder.
- Sometimes, depending on the pressure on the scrum, then the ball might come in at any signal e.g. as soon as the scrums engage.

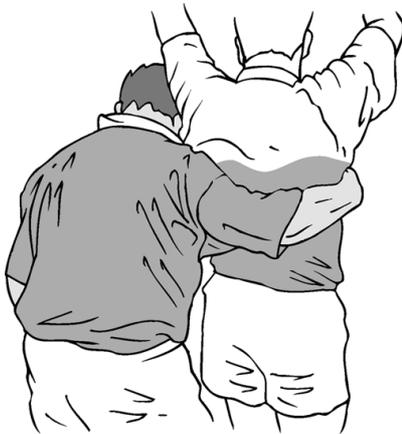
2 The Loose-Head Prop

Ideal characteristics

- Tends to be smaller than the tight-head.
- Stronger left shoulder and upper arm (to counteract tight-head arm tactics).
- Perhaps the quicker of the two props because can get away from scrums more easily to the next phase.

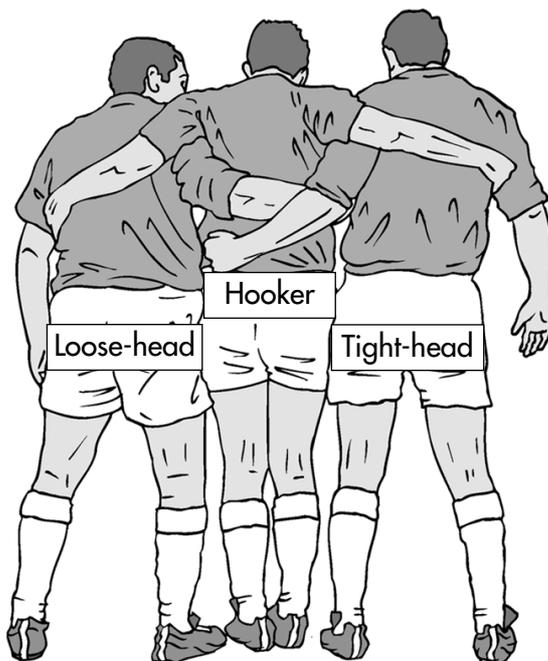
Binding options with hooker

- Can bind either first or second on hooker, though normally would bind first.



The loose-head normally binds first. The prop arrives from behind the hooker, reaches around the front, grips and then slides the hips into position, pulling in the elbow.

Normally higher bind (the grip is higher up the hooker) than tight-head, though some props/coaches prefer the bind to be at the same level.



The loose-head (left hand player) has bound first, hence the arm is inside the tight-head prop. The grip is about midway up the chest, the elbow tight to the body and the hips touching.

Strong grip ensuring there is no gap between hooker and prop. Hips should be touching.



Binding options with hooker



The normal bind is in the middle of the rib cage. A good grip on the shirt, as far round the chest as possible and the pull.



A strong bind can be just below the collar of the shirt. It utilises the strength of the collar fabric.



An unusual bind, but certainly one that gives a strong grip, by grabbing the collar of the shirt. The hooker is the final judge of whether this is comfortable or not.

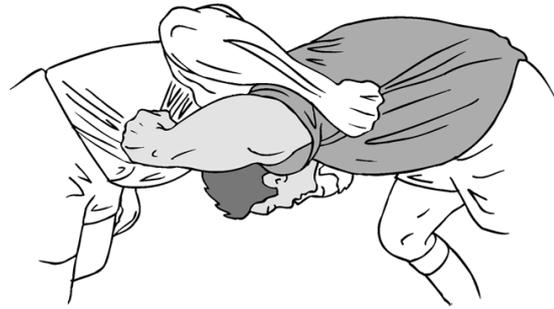
Binding options against opposition

The law: 20.3 (c) Binding by loose-head props.

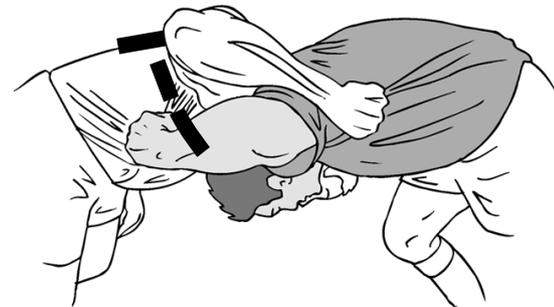
- A loose-head prop must bind on the opposing tight-head prop by placing the left arm inside the right arm of the tight-head and gripping the tight-head prop's jersey on the back or side.
- The loose-head prop must not grip the chest, arm, sleeve or collar of the opposition tight-head prop.
- The loose-head prop must not exert any downward pressure.

Two binding options

1. Short bind: loose-head binds close to the armpit of tight-head. Allows the loose-head to draw bind in (pull tight-head towards them).
2. Long bind: loose-head binds towards the shorts of the tight-head. Reduces ability of tight-head to turn shoulder and provides an extra pushing point (needs a strong left arm).



The loose-head (the player on the right) has their arm under the tight-head. The hand is gripping the shirt on the side, though it could be reaching higher up. The high elbow suggests there is no downward pressure on the opposition prop.



**Bind - higher up the back
Fight to get the bind of the outside arm inside the opponents arm and as far up the back as possible.**

SECRETS

of front binding for loose-head

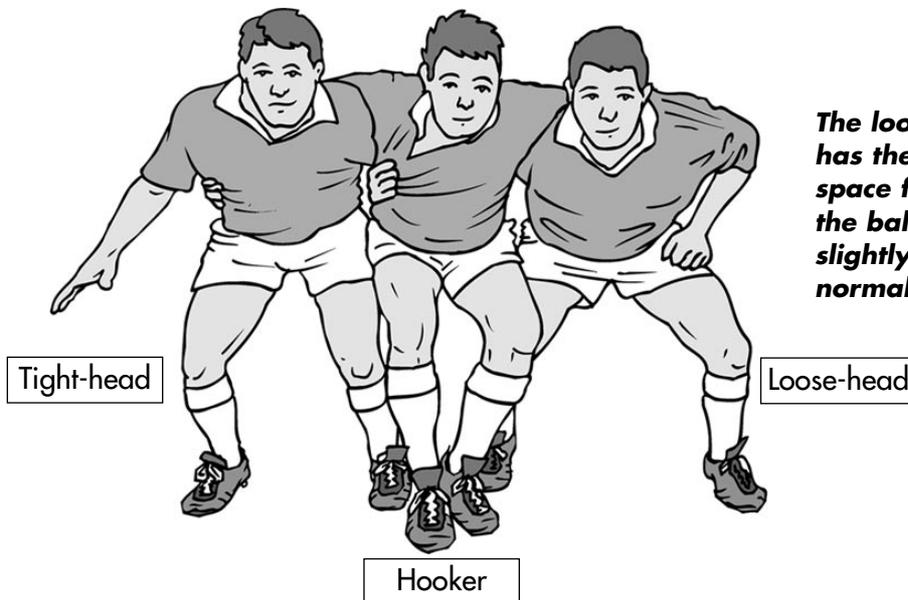
- Try to delay your binding on the opposition until as late as possible – prevents the tight-head from pulling you down.
- Don't delay bind, but keep elbow high even if you can't bind early. If the tight-head can turn your left shoulder down, then you are twisted and de-powered.

Feet position

On your put in:

- Feet wider apart to allow strike – try not to allow your left foot to be further forward

than your right foot, though it can be good for defensive situations.

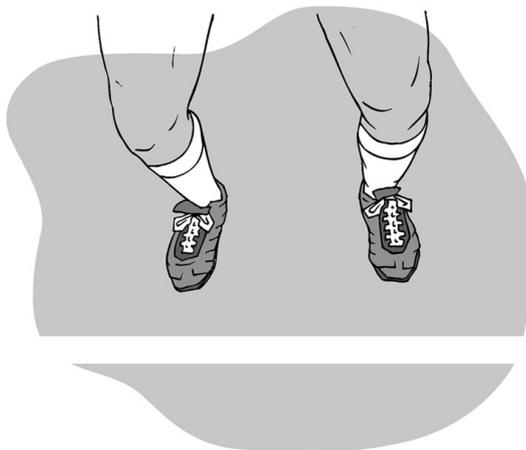


The loose-head (on the right) has the feet square, with a space for the hooker to strike the ball through. The feet are slightly wider apart than for a normal shove.

On their put in:

- Maximum shove – feet square and shoulder width apart.

- (Normally right foot is behind the left foot of the hooker, depending on the stability of the scrum).



The normal pushing position for a loose-head. Feet in line and pointing forwards. The feet are just more than shoulder width apart.

SECRETS

of foot position

“In order to drive forward with maximum force, feet should be close to parallel, at shoulder width, and turned out slightly to afford a better grip.” Doug McClymont –

Senior Lecturer in Physical Education & Coach Education Christchurch College of Education, New Zealand, quoted on: coachesinfo.com

Head position

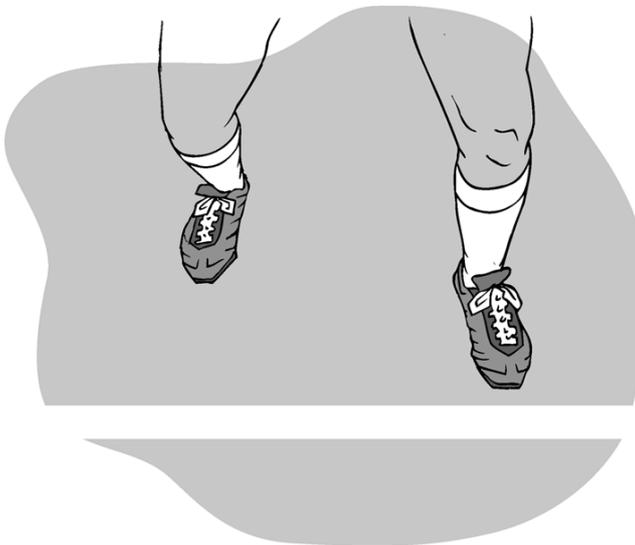
- Getting in underneath on the middle of the tight-head's chest.



The head is placed in the middle of the chest.

Under pressure from opposition

- Left foot forward which puts you in a more stable position but not such a strong pushing position; enables you to use your left arm more effectively. However it is only a small difference otherwise the shoulders and hips are too far out of position.
- Be aware of being lifted off the ground (second rows will need to give a little to help alleviate this).



Relieving pressure from opposition by moving left foot forward. A more stable position but not very dynamic - little chance of a strong go forward action from this position.

SECRETS

on how to reduce pressure

- *If you are twisted round by the tight-head, try to use left shoulder (which is free from contact) to square up rather than push. Lots of work in one-on-one situations should improve this skill.*
- *On your own put in, don't always aim to shove. Lock out the legs and try to get as many studs in the floor as possible (can be done by splaying the feet slightly).*

If you are more dominant than your opposite number

- Concentrate on putting pressure on the same spot on the opposition tight-head every time with the head.
- Adjust the height of the engagement on the opposition tight-head to disrupt their engage and subsequent push.
- Push them off the ball, but be aware of wheeling.
- Don't allow the tight-head to pull you to emphasise the wheel on your own ball. (More than 90 degrees and the ball is turned over).

SECRETS

of dominating effectively

- *There is a danger that one prop dominates whilst the other does not, causing an imbalance in the teams scrum, thus disrupting the shove and reducing the effectiveness of the shove. Both props need to be communicating as much as possible to take full advantage of the chance to individually dominate.*

For maximum disruption of the opposition tight-head

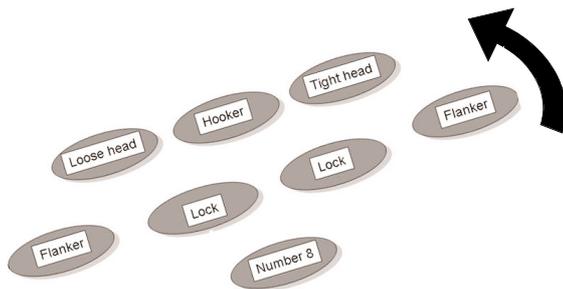
- Bind later than tight-head expects.
- Change the height of the engagement.

Wheeling the scrum to your advantage

- Left: if there is a back row move to the left then the loose-head needs to "nudge up" i.e. wheel the scrum a small amount (25 degrees) by pushing ahead of the rest of the front row.
- Right: if the back row move is to the right, then hold to allow tight-head to "nudge up".

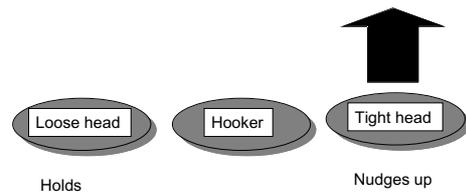
"Up to 3" or right wheel

Tight head nudges up and loose-head holds.



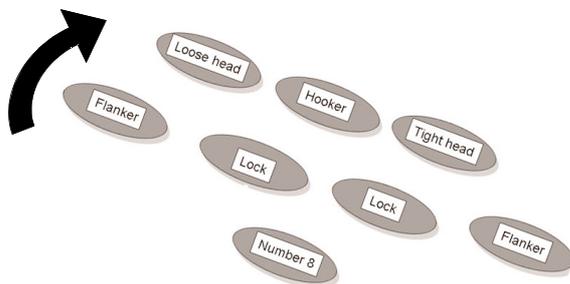
"Up to 3" or right wheel

Tight head nudges up and loose-head holds.



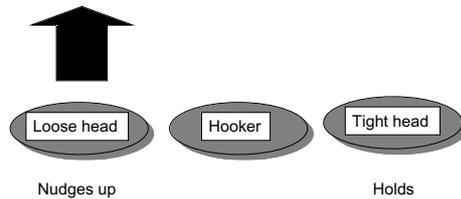
"Up to 1" or left wheel

Loose head nudges up and tight-head holds.



"Up to 1" or left wheel

Loose head nudges up and tight-head holds.



Concentration focus

On your put in:

- Try to give the hooker a stable platform – so propping at the height the hooker wants to strike at.

On their put in:

- Try to get underneath the tight-head and lift him almost up and backwards (but not out of the scrum or off the ground).

3 The Tight-Head Prop

Ideal characteristics

- Tends to be bigger than loose-head.
- The cornerstone of the scrum, so needs to be one of the strongest players on the side and the best scrummager.
- The balance between contribution in the loose and scrum ability falls heavily towards the latter.

Binding options with hooker

- Can bind either first or second on hooker, though normally would bind second (note that the Lions and England in the past have used the tight-head binding first).



- Normally a lower bind (meaning grip is lower on hooker) than loose-head.

The normal bind for a tight-head on the hooker is on the trunk.

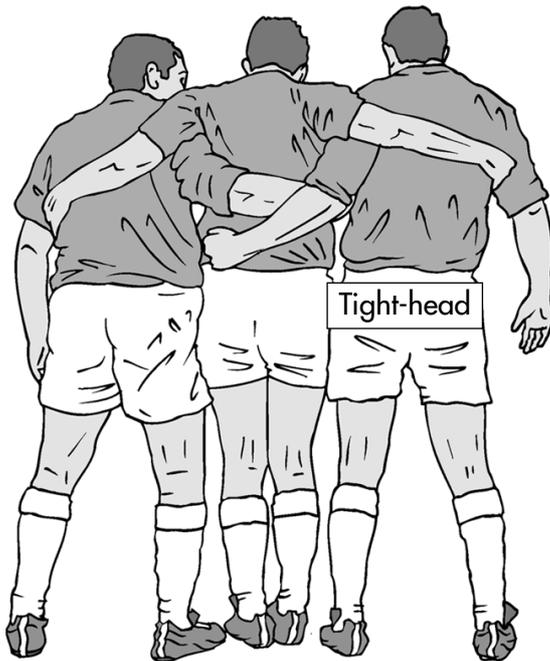
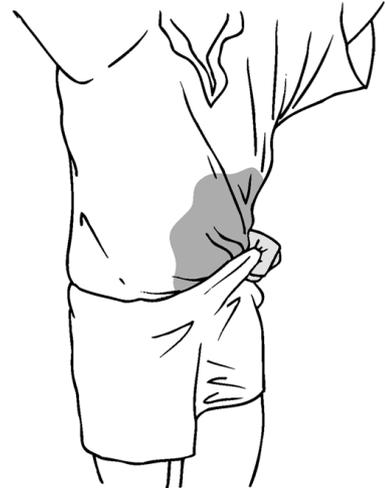


Though the tight-head normally binds second, we can see here how the prop reaches low, near the shorts or on the shorts. See below for advantages of either bind. Once the prop has found the grip required, they swing their hips into position.



Some tight-heads and hookers prefer a bind onto the shorts. It turns the hooker's hips into position and creates a strong bind for the prop. However it does reduce the flexibility of the hooker to strike for the ball. Some hookers prefer to drop their hips when they strike, so this bind would not work so well for them.

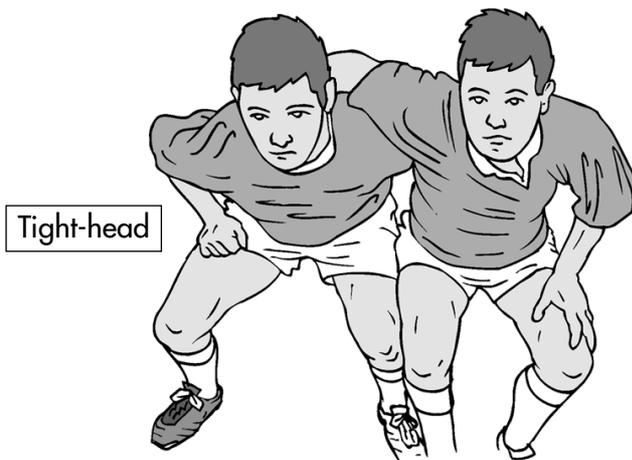
- Strong grip ensuring there is no gap between hooker and prop.
- Hips should be touching.



A typical set-up for the tight-head (right-hand player), with the arm outside the loose-head. Hips should be touching. On your ball the hooker may have right foot forward, on their ball, right foot back.

- Should try to push forward left shoulder so it is in front of the hooker's right shoulder –

this allows you to bind on the opposition loose-head square.



The tight-head should try to push forward left shoulder so it is in front of hooker's right shoulder – this allows you to bind on the opposition loose-head square.

Binding options: against opposition

Law 20.3 (d) Binding by tight-head props.

- A tight-head prop must bind on the opposing loose-head prop by placing the right arm outside the left upper arm of the opposing loose-head prop.
- The tight-head prop must grip the loose-head prop's jersey with the right hand only on the back or side.
- The tight-head prop must not grip the chest, arm, sleeve or collar of the opposition loose-head prop.



The tight-head (the player on the left) has their arm over the loose-head. The hand is gripping the shirt on the side, though it could be reaching higher up. The high elbow suggests there is no downward pressure on the opposition prop.

SECRETS

of tight-head binding

- Get the left shoulder out – with the binding over the loose-head's arm, it is easy not to promote the left shoulder and therefore become twisted.
- The intention is to keep the loose-head down so the hooker can't see the ball.

50 GREAT BACKS MOVES

Dan Cottrell

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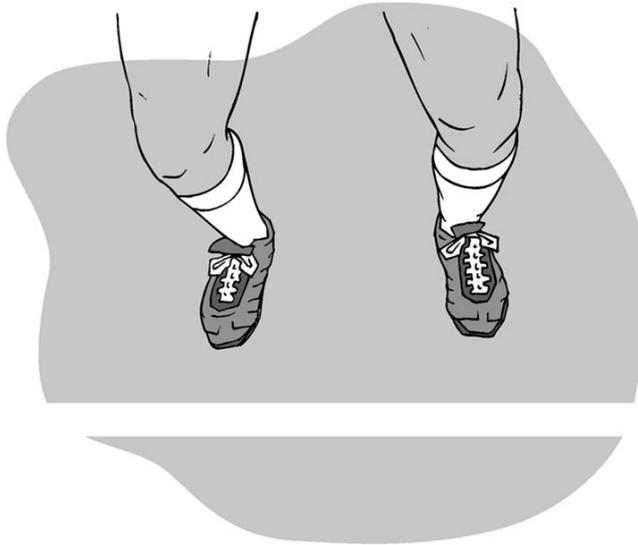
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Feet position

On your and their put in:

- Maximum shove – feet square and slightly wider than shoulder width apart.



The normal pushing position for a tight-head. Feet in line and pointing forwards. The feet are just more than shoulder width apart.

SECRETS

of a different foot position

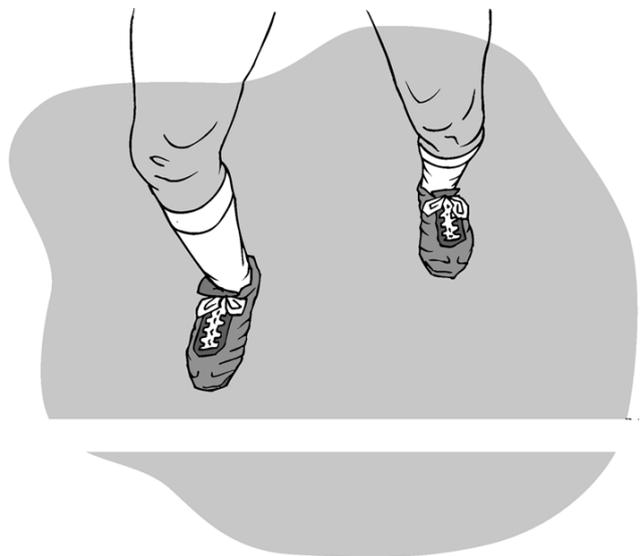
- Some tight-head props have used a sprint position for the foot position. This might suit larger players who have long backs. It certainly helps get players lower, but reduces the effectiveness of other elements, including the tightness of the bind and the position of the second rows.
- Some props like to get their heels into the floor and lock in their legs to prevent any backwards movement. Remember the tight-head is the rock of the scrum, so this can be a good tactic when there is a lot of disruption on your own ball.

Head position

- Try to get your head as close to the opposition loose-head's head as possible to prevent them from getting their head underneath and into your sternum (self preservation!)

Under pressure from opposition

- Right foot forward which puts you in a more stable position but not such a strong pushing position.



To help relieve pressure from the opposition, the tight-head puts their right foot further forward. This will keep the scrum steady but reduces the chances of a good nudge forward.

- Be aware of being lifted off the ground (second rows will need to give a little to help alleviate this).
- If the loose-head is getting in underneath you, then lead with your right shoulder lower and also engage the scrum lower.

If you are more dominant than your opposite number

- Within the laws of the game: twist the loose-head and lower the scrum to prevent their hooker getting a clean strike on the ball.
- Push them off the ball, but be aware of wheeling (needs to work in conjunction with own tight-head).
- Strike for the ball (any player can strike for the ball in the front row) – best to only try this on their ball though.
- Drive harder on the hooker than the loose-head whilst pushing straight, again reducing the effectiveness of the hooker.

For maximum disruption of the opposition loose-head

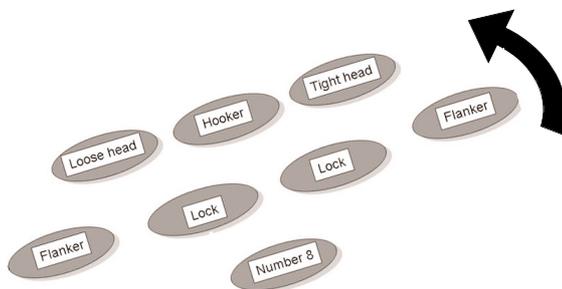
- Twist the shoulders of the loose-head.
- Change the height of the scrum.

Wheeling the scrum to your advantage

- *LEFT:* If there is a back row move to the left the *tight-head* needs to hold as the loose-head needs to “nudge up” i.e. wheel the scrum a small amount (25 degrees).
- *RIGHT:* If the back row move to the right, then the *tight-head* needs to “nudge up”, and the loose-head holds.

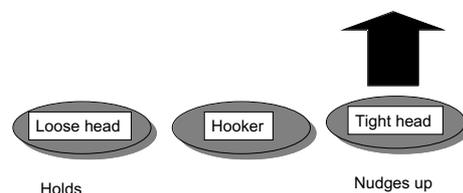
“Up to 3” or right wheel

Tight head nudges up and loose-head holds.



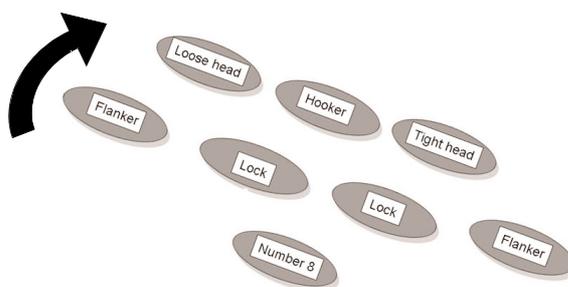
“Up to 3” or right wheel

Tight head nudges up and loose-head holds.



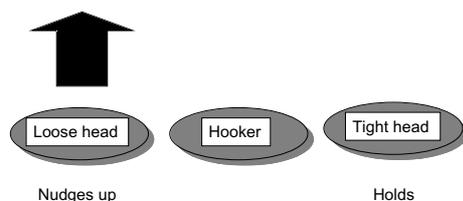
“Up to 1” or left wheel

Loose head nudges up and tight-head holds.



“Up to 1” or left wheel

Loose head nudges up and tight-head holds.



Concentration focus

On your put in:

- Always trying get a “nudge” forward, just a couple of inches as the ball is being put in.

On their put in:

- Trying to take the loose-head as low as you can go without letting your shoulders go below your hips – so disrupting the opposition hooker as they are trying to strike the ball.

4 Choosing whether to play Loose-Head or Tight-Head

What are the main differences?

A typical tight-head is:

- Stronger, better scrummager and likely to be the bigger of the two props. The tight-head is the cornerstone of the front row and must take pride in this role first and foremost.

A typical loose-head is:

- More aggressive, more likely to want to disrupt, prefers to play a more open game. **“Likes a chance to be a pain in the [neck]”**
Rob Ambler, hooker, Cranleigh Rugby Club.

Why can the loose-head disrupt more?

- Because they are only engaging the other pack with one shoulder, they are able to have more input in disrupting the

tight-head. Simply, they have more freedom to change angles and use their free arm.



of specialising or playing both?

Specialise:

- *It is good to specialise because you can perfect your art.*
- **“You can learn to get out of problems”**, says Clive Ford of Cranleigh Rugby Club. *If you are faced with a different prop each week, then eventually you will encounter similar situations and be able to know immediately what to do.*
- *It also suits certain body shapes and types of mind. See what “a typical tight-head and loose-head” might be like above.*
- *And some players just prefer to play only one side because they want to be a certain type of player. “One of the loose-heads props I play with can be quite uncomfortable to play behind because he is always trying to disrupt the opposition – that’s all he wants to do at scrum time.” Ed Burnett, Head of Rugby at Cranleigh School.*

Play both:

- *The most capped prop in the world, Jason Leonard, is a good example of two advantages of playing both tight-head and loose-head. First, Leonard earned his early Lions appearances from his flexibility of playing out of position. This will give props more game time because they can compete for two places, not just one. Second though he had to change his technique, he knew what the opposition prop least wanted to face, because he knew what it was like to play there.*
- *If you can play both then if there is an injury to a prop, the replacement may not be experienced enough to play the side being substituted, so the other prop may have to step across. Of course the replacement might be in the same situation.*

SECRETS**of the front row – playing both**

- *If one prop is under enormous pressure, or weaker than the other prop, then they can be given a break in the game by swapping sides at some of the scrums. It can be useful when one of the props is visibly tiring as well.*

So why is Andrew Sheridan loose-head?

- Andrew Sheridan plays for England and was part of the Lions squad in New Zealand. He has the characteristics of tight-head – physically very strong – can bench press two and half times his body weight; he is 6ft 5 inches as well. However he only converted to the front row relatively recently: so he plays on the loose-head side. A tight-head needs to be the more “technical” player, especially since you are up against two players, not one. You are the cornerstone of the pack so you should be the best scrummager. However, Sheridan could be a tight-head for the future with more experience. On balance though it is his ability to contribute in the loose. In which case, playing loose-head gives him more flexibility out of the scrum.

SECRETS**of playing tight or loose**

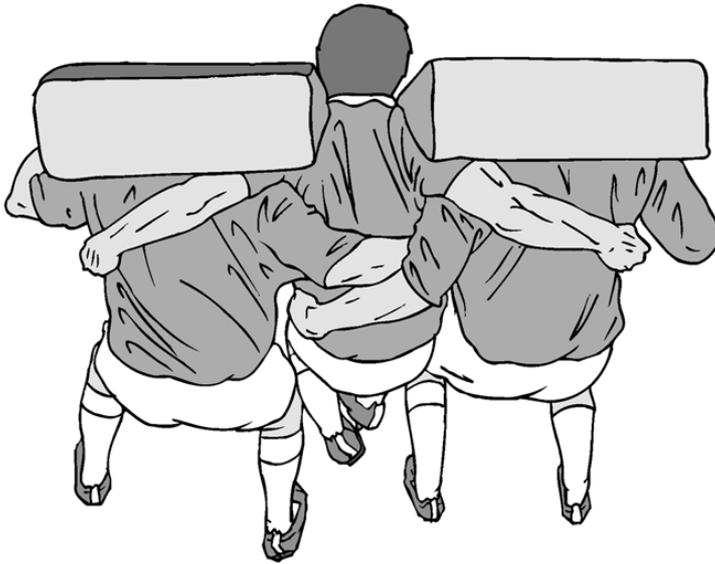
- *Darren Garforth of Leicester and England: “Tighthead is a completely different position. I couldn’t play at loose-head. Tighthead is a more confrontational position where you have to be strong to stay square, whereas loosehead involves agility and getting into gaps.”*
Quoted on Leicester Tigers website: tigers.co.uk
- *Perry Freshwater of Perpignan and England: “When you switch sides in the scrum, it’s like learning to write with your other hand – close your eyes, engage right and push like hell!”*
Quoted on Leicester Tigers website: tigers.co.uk

Jason Leonard says you can play both but you cannot flit between the two – you need “**long enough to get used to it**” to play well. The real struggle comes when the player becomes tired and loses concentration on how to play the position.

5 Binding

What are the benefits of good binding?

- It is where the strength comes from: if you split the front row then you lose the focus of power; second rows have nothing to push against.
- Improves the freedom of movement for the hooker.
- Give the 2nd rows a more solid base from which to push.
- Props are holding the hooker up: if the hooker is not held securely he would be unable to strike the ball because he would fall over.



The hooker is bound in SECURELY by the props, yet able to swing the feet for the ball.

The arm of the tight-head prop is over the arm of the loose-head prop.

Note the hips of the props are in line with their shoulders, so the shove from the second rows will go forward.

Binding psychology

1. Think about the bind being a *quick and efficient process*. Therefore be comfortable with the system of binding and work easily with co-players.
2. Two pillars, two props – the props providing a stable platform for hooker to support themselves. If the hooker is not comfortable, then rethink the binding.

SECRETS

of better binding

- The higher the bind, i.e. where the hand grips the shirt, the more it keeps the hooker square.
- Locking the hand in: put the hand into the shirt and then twist to get a strong bind. See "A stronger grip" on the next page.

What is a good step by step way to bind for a strong scrum?

1. Hooker gets into position first.
2. Normally loose-head binds first onto hooker:
 - approach the hooker from behind,
 - reach around, grab shirt; arrive into position.
3. Tight-head bind:
 - arrives from behind,
 - reaches in and grabs lower than loose head,
 - arrives into position.



Normally the loose-head prop binds first. Approaches from behind, reaches around and then binds tightly.

Good practices for stronger binding

- *Grip work practices:* Squeezy weights, such as handgrips, "Eggsercizer Hand Exerciser", "Power Webs", which can be used by front row players when they are not team training.
- *Try out different binding positions* on the hooker for maximum strength. Different body shapes might mean different binds.

SECRETS

of front row binding

- Grab the collar, because this is a strong bind, but hooker may feel uncomfortable.
- Binding on shorts is good because the waistband is very strong BUT it can prevent hooker from releasing their hips. Not popular with every hooker.
- Think high elbow for maximum power; when you drop the elbow then you lose your strength of bind.
- Ratchet bind: the hooker leans forward before the bind, the props bind on and the hooker stands up, with the bind now much tighter than before.
- Hooker-ready bind: the hooker gets into a hooking position, i.e. crouches with striking foot further forward than the planted foot, then the props bind on. This means there is less movement before the engagement and the hooker is sure of their starting position to strike the ball. More importantly it sets the height the hooker wishes to be in.
- **“There are a variety of binds but it is essential the hooker keeps his props tight. The props can vary the position of their bind but always ensuring they are tight across the shoulders. They will then scrum together as a unit.”** John Mallet (Bath and England)



Grabbing the collar by the loose-head to get a stronger bind – but only if the hooker finds this comfortable.

“Fight to get the bind of the outside arm inside the opponents arm and as far up the back as possible.” Paul Tyler, Scottish Youth Development Officer and former hooker.

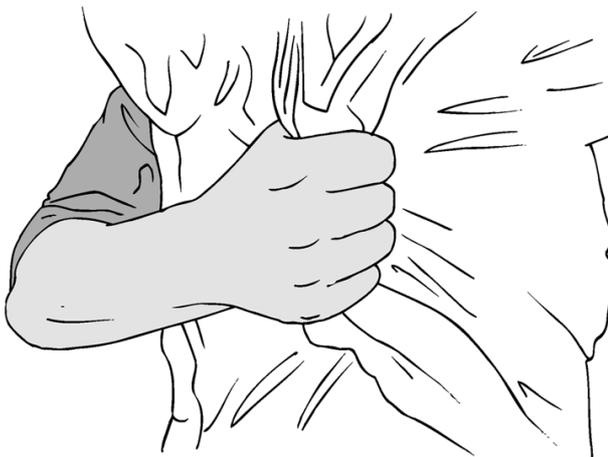
A stronger grip



Bring the hand round the front of the body with the thumb pointing downwards.



Pull the shirt over the thumb.



Twist the hand downwards and pull in.

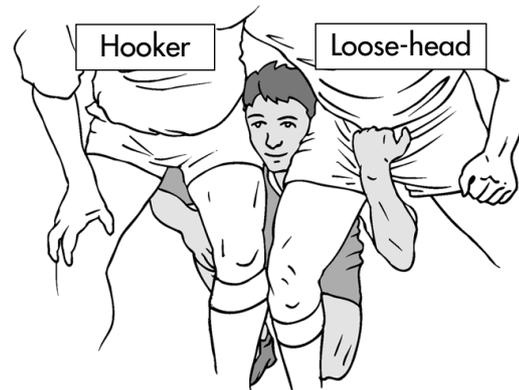
Why is second row and back row binding important for the front row?

- *Second row:* provides strength and drive to the props.
- *Back row:* helping to ensure that the props push straight as well as providing drive.

Binding options with second row

1. Through the legs

- Second row can bind on the knot of draw string of shorts – the second row will find it easier if the prop guides the second row's hand to the appropriate place.



The second row is binding on the middle of the shorts, with the head just below the hips, but looking up.

- A stronger bind: if the second row binds on the pocket of the prop closest to the hooker. Pulls arm into the leg.



The second row is binding on the thigh by the shorts, with the head just below the hips, but looking up. The elbow is firmly into the leg.

2. Around the waist

- At junior levels (e.g. U13 and U14 in the England), the locks should bind around the waist band of the props. However there

are some international sides who used the "around the waist" technique until quite recently.

Binding options with flankers

- Most flankers will bind onto the second row and then push their shoulder into the "shelf", where the leg meets the buttock. However if the prop needs extra support, then it is possible for the flanker to bind

through the legs of the prop. It does reduce the ability of the flanker to get away from the scrum, but the first role is to scrummage, so a balance needs to be struck.

Option one: Lock goes down on one knee, binds with other lock and then puts hand into bind position with prop. The key here is that the shoulder needs to fit into the shelf just underneath the buttocks.

Option two: Lock binds with other lock and then crouches down with both feet parallel, putting shoulder into the shelf as before.

The hooker controlling the bind

- Hooker does not crouch before engagement until certain of the full pack binding. He may shout "seconds in" or "four heads" when the props have bound on. "Four heads" means that the four heads of the

flankers and locks are positioned on or near to the hips of the props, so the hooker can see them. All the hookers interviewed said the command to bind should be "barked".



second row binding to front row

- *Before each scrum props should get into the habit of dressing to allow the proper binding of the second rows. Shirts should be tucked in and the front of the shorts available. Also, careful consideration*

should be made to the type of shorts being worn. Check the draw strings and whether the shorts have pockets before purchasing the shorts.

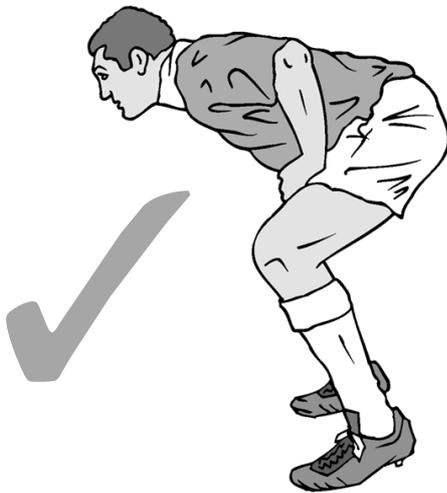
6 Body positions

Why do we want the feet in the best position?

- A good foot position means the shove from the legs is working in the right direction.
- Bad feet can mean all the effort produced from a good body position is lost.

What is a good foot and leg position?

- Working on the balls of the feet. Back studs won't be needed if the feet are well positioned.
- Feet forward and just over shoulder width apart.



Feet: On the balls of the feet, with the back studs in the air.
Legs: Before the engagement, the hips are behind the knees.

"Squat like you're sitting on a French toilet" Tony Robinson, former Saracens prop.

Training

- Inches mean pressure. Small steps are vital in creating the inches of pressure to win your own ball and disrupt the opposition. Practice by one on two training, where the two bind and offer passive resistance whilst the other drives against them using small steps. It can be performed over a line marking to indicate the short distance required.

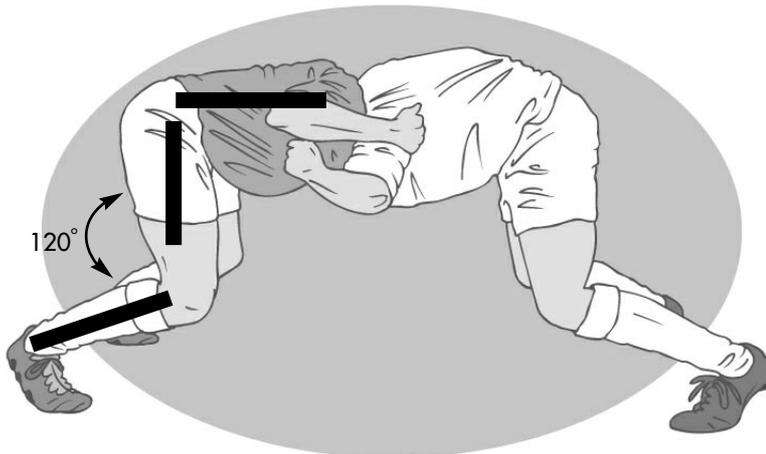
What are the best boots to wear?

- High cut ankle boots have been the most popular boot for front rows. They offer more stability around the ankle as well as some protection from stray boots at scrum time. However, the overriding consideration must be the balance between comfort and strength. The boot needs to transmit a lot of power in a scrum and so must be strong enough to withstand pressures in all directions. However it must also be comfortable. Hard tipped boots are now less common.

Shin pads are a must

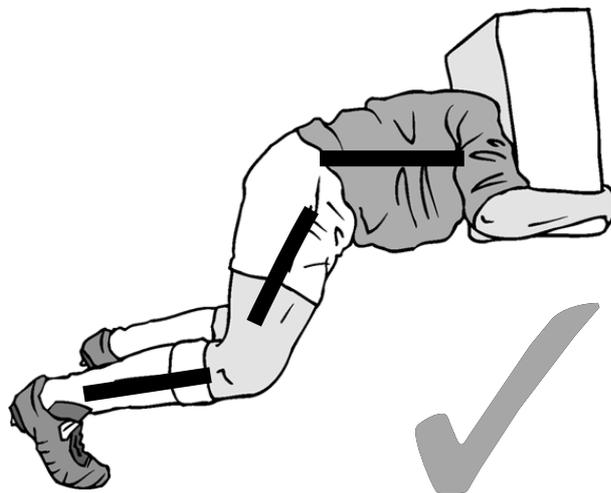
- All the front row should wear shin pads. The best have protection around the ankles as well if low cut boots are worn.

Good feet and legs



On engagement, the hips of both players are above the knees. The thighs are perpendicular, and the feet are pointing forward, and the players are on the balls of their feet.

Some coaching text books say that there is some evidence that an angle of 120 degrees for the leg bend is best for applying the most force at impact.



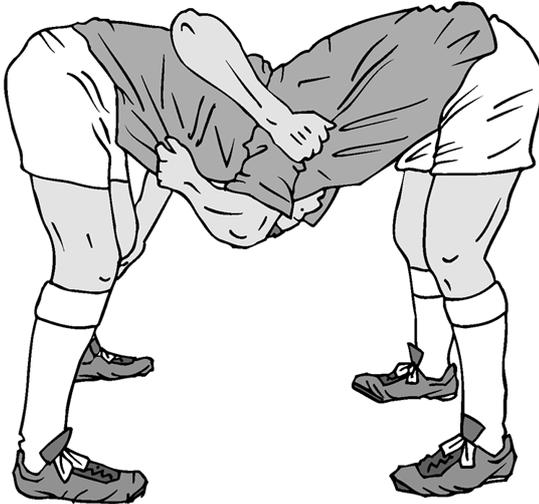
After the initial shove, the hips have moved forward, but there is still some flex in the legs.

Julian Davies, former London Welsh and Esher prop: **"A lot of people think it's about size and position but it's all about the strength of your abdominal muscles – neck to waist. The further you can put your legs back, the stronger the push."**

Nigel Horton, Lions scrummaging coach: **"The key to scrummaging is balance. It comes first from the feet and then the legs. You can be as strong as an ox, but if you are off balance, then the shove is dissipated."**

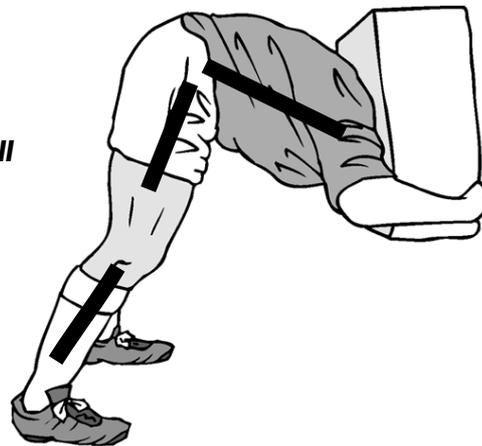
Bad feet and legs

- Check your players for signs of “bad” feet and legs.



Bad driving position.
Legs are virtually straight.
Hips are higher than shoulders.
The feet are neutral – there is no flex for a shove.
Also note that the binding of the right hand player shows him pulling the other down.

Still no flex in the legs and feet still flat.



SECRETS

of feet and body positions

“In general it is recognised that having the feet offset allows greater variation when it comes to creating options as it is difficult to react going backwards with your feet together. Coaching generally centres around being offset to absorb the impact and then taking small steps (in unison) to try and promote your scrum.” Martin Toomey, fitness adviser to the All Blacks 1997-1999, quoted on coachesinfo.com

“Spine in line saves 999.” Jim Love, NZ Sports Academy manager and assistant coach of NZ Maori

“First, foot position should be close to shoulder width and ‘heel to toe’. i.e the heel of the outside foot level with the toes of the inside foot. Secondly always keep the feet under the body, short forward steps so that the legs are always bent.” Former England prop John Mallet.

“I am controversial about this – I think that the feet should be splayed more than the normal coaching manuals say – especially if you want to lock the legs rather than push. In my experience, this gives a much stronger contact with the ground.” Nigel Horton, Lions scrummaging coach.

SECRETS**of front row feet**

- *In wet weather, get the mud off your studs, and then stamp a foot position into the ground.*
- *In wet weather it is more important to stay static and solid first, so keep a strong base with the feet, rather than a dynamic base. A dynamic base is where the toes are felt to be gripping the ground to get the maximum drive forward. For a strong base try splaying the feet for more traction. Angle the knees out a little and have the heels of the boot in the ground.*
- *Always carry a spare set of studs and a spanner in your bag. Remember to pack a set of long studs for the wet weather games.*
- *Tape up your laces to avoid the hooker's feet being caught during the strike, and other players' boots in the front row moving after the engagement.*
- *Put your feet back a little further if you are under pressure to avoid being lifted.*

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7 Winning the engagement

What is winning the engagement?

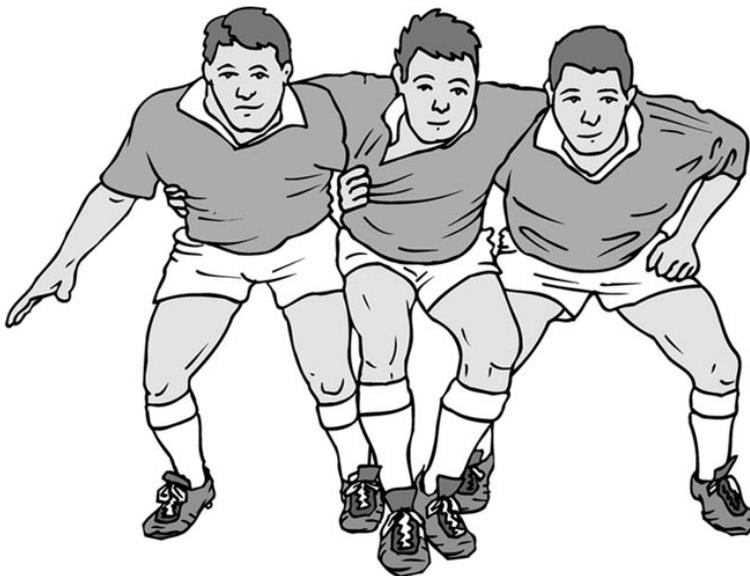
- This is achieving dominance straight after the initial engagement. Therefore that pack is in the best position to compete for the put in, either to win their own ball cleanly, or to disrupt the opposition put in.

Why do we want to win the engagement?

- *Clear strike for hooker* – quick ball and easy ball.
- *Morale* – losing the engagement means that players become less effective, because they feel tired, concentrate less and can be apprehensive.
- *Easier to manipulate the angles of the scrum* – useful for back row moves; or easier pass for scrum half.

Key factors

- *Controlled aggression* – a real desire to dominate by the application of constant physical pressure.
- *Team work* – must be working in unison; certainly the front seven players need to be cohesive in their initial actions on engagement.
- *Spine in line* – all the spines should be aligned forward on impact.

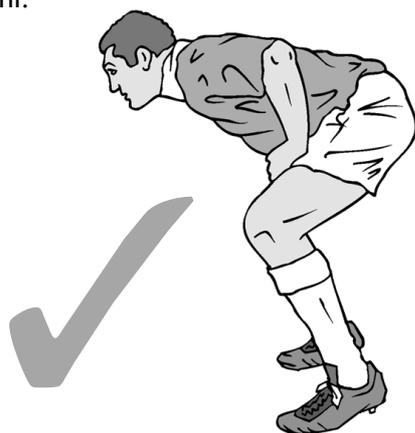


Winning the engagement with a good approach: controlled aggression, working in unison and spine in line.

Note the "active body" – leaning forward, bent legs, shoulders square.

Coaching techniques

- Consistent work on getting the basic technique correct. This means a cohesive system of binding, setting and then engaging.
- Start with individual body positions, engaging a scrum machine or two pads.
- Timing is essential – use triggers to time engagement.



Into a crouch position:

1. Start standing with back straight.
2. Front row bend knees to lower hips.
3. Then bend forward with drive from second row.

REMEMBER: Hips must be lower than shoulders – safety, laws and the most effective way to scrummage.

A good active body position: straight back, knees bent, on the toes.

SECRETS

of more successful scrummaging

- *Tight-head prop could lead the scrum in: engages with the opposition first if possible. It gives the hooker a natural advantage. Once in, tight-head must not move feet.*
 - *Look up before engagement: keeps the back straight, and makes it easier to focus on the contact point.*
 - *Draw in the bind: when the two front rows engage, the props should pull their opposite number onto them with the bind. This prevents disruption and strengthens the props positioning. It gives the prop more*
- dominance and push. Try “drawing the binds” on a scrum machine and see the improvement in push without any leg power.*
- *Total Impact Method: a method of “engaging” used primarily in New Zealand whereby the props sit back initially and lean forward so they are held back by the lock forwards and number 8. The lock forwards and number 8 then drive the props forward on the command “engage”. It requires very tight binding and also referees who are good at understanding the scrummage.*

What is best to shout to help the timing?

When the pack engages, the cohesiveness can be improved by calling the engage together. It can be called by the whole pack or just a pack leader (we prefer the whole pack). Pick the one you want your team to use:

- "Squeeze, knees, drive": squeeze the binding, flex the knees and then drive on the engage.
- "In 1,2,3; Drive 1,2,3": use of numbers to continue the momentum of the engage and drive. Some teams will use more numbers to keep the drive going further, e.g. Drive 1,2,3,4,5.
- "Sit - And - In": a rhythmic call that is simple, says what the front is going to do and less is said.

SECRETS

on winning the engagement

- *If the prop can apply the pressure with his head on exactly the same place on their opposite number every time, then after a while it begins to become very uncomfortable for the opposition. Test this yourself by pressing the exact same point on your ribs every five seconds, then you will understand the effectiveness of this secret technique. And this means eyes open every time at the engagement.*



Eyes open and targeting the same spot - reduces the comfort of the opposition prop!

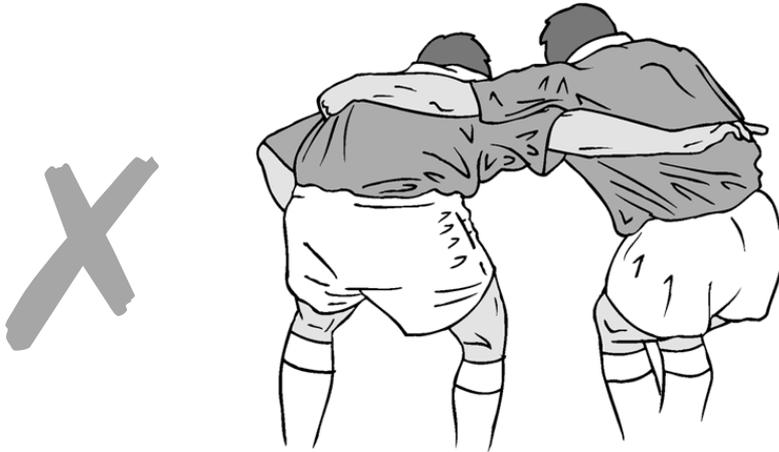
Front row psychology

- *Think about dominance* - getting the better of an opposite number - making scrum-maging an uncomfortable and undesirable experience for your opposite number.
- *Think about pride* - even if you are under pressure in every scrum, what is the best outcome you can achieve for the team.

"Gaining the upper hand on the referee's engage is essential. Weight forward and explode on 'engage' - too many big players do not use their weight in this area." John Mallet (Bath and England)

Poor binding and body position

- Poor binding and body position can be bad news for winning the engagement.



Poor binding: a loose grip and lots of space between the hips. The players are pointing into each other, so there will be no joint forward momentum.



Poor binding: the elbow is high with a gap between the arm and the body. The hips are apart and the shoulders turn in. This prop will never be able to push straight, or give the hooker strong support.

Brian Moore, former England and Lions hooker: **“Engaging hard and low is the most important thing as it makes engagement easier.”**

Good binding



Good binding and good body position: hips together, shoulders square. You can see the hand of the prop pulling hard on the hooker's shirt.

Getting a good grip for a better body position



The prop reaches around the hooker to grab the shirt. The prop then "pulls through" with the inside shoulder. This leaves the players square to the target, with hips and shoulders in line. This should mean that when the players crouch and sit, the spine should be pointing directly forward.

Bad approach to the scrums

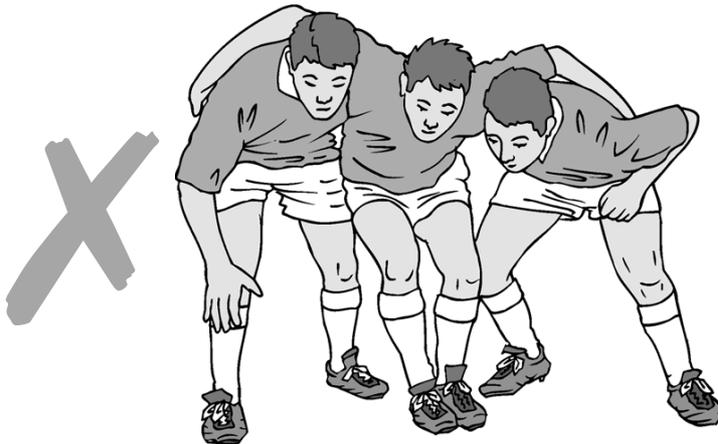
- The set up for the approach must be good otherwise the players will crouch into a poor position.



The left hand player is standing with no flex.

The players are at different heights.

The right hand player is leaning in and both props feet and hips not square.



The result is that both props shoulders are hidden when the players sit for the engagement.

There is a huge gap between the hips of prop and hooker (loose-head). This is bad for a lock forward to transmit forward power.

SECRETS

of the engagement

- *“The engagement has become so important in the modern scrum (not that it hasn’t always been important) teams are actively targeting the engagement to get the advantage – this is how the All Blacks dominated the Lions scrum, they worked intensely on the engagement in the build*

up to the tour. Hours were spent just setting and engaging – then break up and perform another skill – then back for another engage. Gone are the days of packs staying down and driving scrum machines for miles and miles!” Paul Tyler

8 Winning your own put in

Why is it good to win the put in well?

- Quick ball for moves.
- Easier to manipulate ball for the number 8.
- Back row can afford to concentrate on other things, like back row moves or supporting the back line.

Key factors

Scrummage at the lowest height that the hooker is comfortable with.

- Don't go too low too soon, either in a match or in a practice.
- Find the balance between height and strike with different combinations of hookers and props.

Shove a couple of inches when the ball comes in.

- Quick, short snap of the legs, but leaving a little bend in the knees.

- Don't forget you are pushing with 7 players against their 8; a quick shove puts them on the back foot, so preventing them disrupting your ball.

Timing the "feed, strike, snap"

- "Feed" – hooker indicates for the ball to be put in.
- "Strike" – hooker strikes ball back.
- "Snap" – seven players straighten legs to give initial shove.
- Strike, snap as quickly as you say it!



on winning your own put in

- *Props should snap when they see the hooker's leg move.*
- *Remember to concentrate on knees and hips – don't over extend before the snap, don't completely straighten after the snap.*
- *Once the feet are set in position – props should not move their feet (unless they need to maintain balance).*
- *Controversial school of thought: don't push, but lock in legs and feet to win your own put in. No push from your side means less disruption from a loss of balance.*

Practices

1. One on one or against a bag – a prop gets into position and a third player drops a ball from about 6 inches next to the player who then "snaps".
2. Three against three, with hooker in a comfortable position, trying to strike the ball as well as being as low as possible. Opposition scrum snaps, but does not disrupt – there is not enough stability without flankers and locks and therefore the effectiveness of this practice is reduced. The aim of the practice is to isolate the snap, so it is quick effort and then rest.
3. Two v one: Two players try to drive back one, replicating a tight-head v hooker and loose-head.

9 Tactics

Wheel

- A wheel is where the scrum is turned either left or right. Senior teams are allowed to wheel the scrum up to 90 degrees. Under 19 teams are not allowed to intentionally wheel the scrum.
- In practice, in attack, a wheel needs only to be between 25 degrees and 45 degrees; the greater the wheel, the less stable the scrum. Best wheels come from one of the props taking small steps forward, with the other prop holding their ground.
- In defence, the props need to communicate before each scrum to know which way they are going to wheel and then tell the rest of the pack.

Quick ball under pressure

- If the front row is under extreme pressure, then quick ball out of the scrum is important to provide any sort of platform for the team. If this is the case, then the scrum half will need to put the ball in as soon after the pack engagement as possible. Timing and communication is vital and must be practised in advance of game time.

Focusing on a player

- One way of exerting extra pressure on the opposition is to focus two front rowers (a hooker and prop) onto one. For instance a tight-head and hooker may target the opposition hooker. By doing this, they tire the singled out player, who will lose shape and therefore reduce the effectiveness of the whole pack. The most effective way this can be achieved is by placing the heads closer together, especially on the tight-head side.

Distances to engagement

- Before the engagement, the packs will line up approximately an arms distance apart. At youth rugby, the engagement is strictly controlled with the words "touch" inserted before the "pause" and "engage" commands. A front row can however manipulate the distance between the two packs to give them an advantage. Sometimes by standing a little further away and engaging a little later, they can make the other team over extend enough to give them the initial advantage. A similar trick can be played by closing the distance.

Perry Freshwater, Perpignan and England prop: **"It is difficult to scrum against a shrewd prop, i.e. one who bends the rules."** Quoted on Leicester Tigers website: tigers.co.uk

To strike or not to strike on the opposition ball

- Though some hookers and props like to try for every ball, it makes sense to retain the element of surprise. In other words, don't try it every time. If the ball is won, then it is important to call for a secondary shove.

This will ensure the ball is kept and if the scrum is ended before the ball comes out of the scrum, then the referee should award the put in to the side who took against the head.

The drive – different types

- Pushover try: a pushover try requires two phases for success. The initial engagement and winning the ball, which should be the number one priority. Once secure, the secondary shove should be called for. The key here is short stable steps by the front row, focusing on a square low drive. The drive should be controlled all the way, with the front row working hard all the time to keep

the scrum straight and square to the line.

- Different steps: sometimes it is worth trying something slightly different in a tight situation. Instead of taking four small steps, try taking two big steps forward in a drive. If it works, then the opposition will be well and truly on the back foot, losing any real chance of recovery.

SECRETS

of the first few scrums of the game

There are two schools of thought:

1. *Don't blow yourself in the first few scrums. "I like to keep a few tools hidden in the tool box" says Clive Ford, Cranleigh RFC prop. The initial encounters are not just about the winning the psychological battle, but also the idea of trying to understand what you are facing and how to deal with it. So keep something back, physically and in terms of tactically until you have worked out how to deal with what's in front of you.*
2. *"Kitchen sink" says Jason Leonard. One of England's most experienced scrummagers, Leonard felt that you throw all your strength into the first few scrums. These will give you the psychological advantage early and make it difficult for the other side to mentally come back. They don't know whether you are going to tire or not, so they may not expect any respite in future scrums.*

SECRETS

Tactical secrets summary

- *Wheeling: small steps by one prop and hold by the other. Must communicate before each scrum.*
- *Quick ball under pressure: ball is put in as soon as scrums engage.*
- *Focusing on a player: disrupt the opposition by "targeting" one front rower with two.*
- *Distance: change the distances before engagement to disrupt the opposition.*
- *Striking for the opposition ball: retain the element of surprise and uncertainty by not striking for every ball on the opposition put in.*
- *Pushover: win the ball first, then controlled, square drive.*
- *Steps: sometimes try two big steps instead of four short steps in a drive to gain an advantage in the shove.*
- *First few scrums: either hold back, not showing all your tricks, or throw the "kitchen sink" at them in the first few scrums to knock them off their stride for the rest of the game.*

SECRETS

The ultimate secret?

- *On your own put in, try not pushing, but just resisting. This is the advice of former England and Lions player, Nigel Horton. The man who looks after the Lions scrum-maging machine work says that if you resist then you stay on balance and your power is greater than if you push. Think of pushing up a bar with weights. If you lock out at the top, then it is possible to add on far more weight than you could lift initially.*

Strategies to beat cheats

- *Other sides or specific players will try to cheat to gain an advantage. It is helpful to know how cheating happens, to work out what strategies to employ.*
- *It is good for referee, and coaches who have to referee, to know what sort of skulduggery might be going on.*
- *Players need to be prepared for different tactics used by their opposite number.*
- *This report does not condone cheating in any form.*

How players or sides cheat in the front row

- *Thumb in the shorts*: opposition player reaches over the top and then puts their thumb in the shorts. They then pull the prop outwards.
- *Bind on the shorts*: instead of binding on the back or the side of the shirt, the prop will bind on the shorts with a straight arm. This gives a another piston from which to shove.
- *Head on the hooker's knee*: the opposition hooker places their head on the other hooker's striking knee making it difficult to strike the ball.
- *Engagement miss hits*: just before the engagement, the opposing prop hits the opposition shoulder with their arm to change the angle of impact. This reduces the effectiveness of the initial impact.
- *Boring in*: this is where a prop turns in on the prop or hooker next to them. Often it is where the loose-head and the hooker target the opposition tight-head. They will start by making a very small space for the tight-head's head to engage on impact and then drive in. The aim is to destabilise the scrum and thus reduce the effectiveness of the shove.
- *Dropping the scrum under pressure*: a very dangerous tactic whereby the opposition front row fold forward to bring the other front row down with them. If the referee is finding it difficult to pick out the perpetrators, then it is used to disrupt the rhythm of the other scrum.
- *Popping up under pressure*: if a hooker or prop feels they are at a disadvantage on impact then they may well "pop" upwards and out of the scrum. They might even "pop" up just before impact as well.
- *Slipping the binding*: it is remarkable difficult to work out who is binding on who in the front row when looked at from the referee's point of view. Some unscrupulous props and/or hookers may slip their inside binding and punch or gouge their opposite number.
- *Stamping on toes*: if a front row has some ascendancy on the initial engagement, then they may stamp on the toes of the other players. Hookers are often targets for this type of treatment.

SECRETS

dealing with cheating

- *Knowing a "cheating move" is coming often reduces its impact because the surprise is one of the reasons for its success. A prop who seems to be phased by a "cheating move" will encourage more of the same.*
- *Always communicate calmly with the referee if there is danger involved, preferably through the pack leader.*
- *Never retaliate – retaliation legitimises the original cheat and can lead to the retaliator facing the punishment.*
- *Ultimately – scrummage well and the cheats will need to scrummage well in return to maintain their shape.*

Disrupting the opposition ball

- This slows down or prevents the effective execution of the opposition moves, especially back row moves.
- It creates a chance to win the ball against the head.
- It gains your team a psychological advantage.

Key factors

- Engage as low as possible to prevent the hooker striking the ball.
- Tight-head binds as late as possible onto opposition and then with outside arm tries to turn the opposition loose-head so the opposition cannot push straight.
- Loose-head tries to get under the opposition tight-head (head pushing up on the sternum), making the tight-head push upwards, not straight.
- Hooker should try for a strike against weaker opposition or start with feet back and acts like another prop; drives head into opposition hooker's sternum.



Disruption by the loose-head putting pressure on the middle of tight-head's chest.

SECRETS

of good disruption

1. Watch out! The opposition might be trying to turn you into an unfavourable position – be prepared to counter this. Instead drive straight because the wheel might be what they want, not what you want.
2. In terms of disruption, the element of surprise is far more effective than trying to disrupt every scrum. Choose which scrums to target, and make sure the whole front row knows what the tactics are.

Practices

1. Individual scrum work: pads or scrum machine work, set very low. Remember safety aspects, shoulders above hips and looking up. Each player does 5 sets of very low crouch and then engages.
2. One on one wrestling: take it in turns from a scrum engagement to get underneath the opposition player. Work for 5 seconds then change. Make sure that the groups are mixed up so different body shapes are worked on. Good to work against a much stronger player – enhances the technique.
3. From individual work, move straight into groups of three.

10 Training

Why is it good to use the scrum machine?

On the most basic scrum machine

- It is useful to build a scrum safely so the team can go into the match with confidence.
- Easy way to isolate individual technique.
- Don't need a large number of players to replicate a scrum.
- To be able to change players around and give them instruction as they are not fighting against an opposition.
- Learn and practice the timings of the strike from the hooker.
- Improve cohesion of drive.
- **"Good to feel the weight of the rest of the pack against you when you are trying to**

perform technical adjustments or striking the ball" Rob Ambler, Cranleigh RFC (hooker).

On the more advanced scrum machines

- Measurement of the power and the strength coming from different sides of the scrum.
- Change the height that the scrum engages and scrummages.
- Change the resistance so the team can practise drives, wheels and back row moves.
- The pads can dip down enabling the coach to observe that the scrum is moving in the right direction. Ideally the pads should be compressed against the machine. Any vertical movement indicates a loss of forward power.

Careful – the scrum machine cannot do the following...

- Replicate an opposition – i.e. different body shapes, pressures and shove coming back.
- It is not aggressive, or awkward and the

pads are more comfortable than opposition shoulders. It cannot replicate the use of the head by the opposition.

Safety first when using a scrum machine

- Always inspect the scrum machine before using it for signs of wear and tear.
- On more advanced machines check brakes, resistance and set them at the level the players expect – if the resistance is

wrong then serious injury might occur.

- Ensure the scrum machine is constantly moved so the ground is not slippery, muddy (but remember that these conditions should be practised at certain times).



essential scrum machine advice

- *Make the players "owners" of the scrum machine – they will need to understand why, how and when the scrum machine is being used. They will then want to check for safety and want to know what they are*

going to achieve from the session as well as the coach.

- *Some clubs prefer the front row to maintain the machine themselves.*

Good objectives from a scrum machine practice

- A warm up using the pads for resistance – e.g. one player driving against each pad, with the emphasis on warming up the neck, shoulders and legs.
- A review of technique – e.g. players binding together in their units to engage the machine.
- Building up from the front row onwards, mainly to ensure that the hooker is comfortable.
- Changing players around to try out different combinations – e.g. to take into account that there may be substitutions during a game.
- Practising the strike to number 8.
- Practising the defensive shove with the flanker calling the opposition ball in.
- Practising a pushover try.
- Practising wheeling the scrum (where the age grade laws allow).
- Play from the scrum – e.g. what happens next, so players can get used to scrummaging and then playing the next phase.
- Practising striking the ball through different channels.

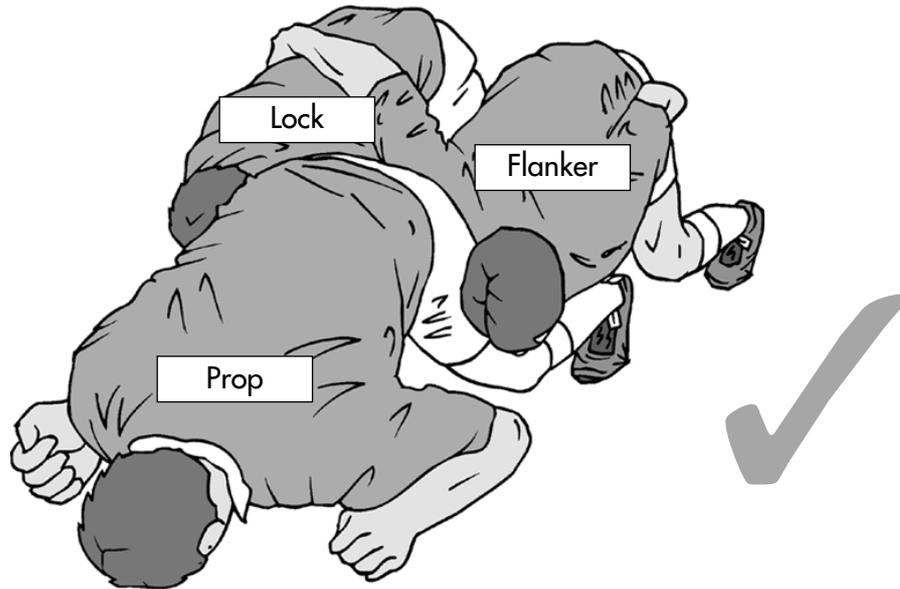
SECRETS

of a good practice on the scrum machine

- *Only put the ball in once for the scrum – break up every time and reset.*
- *A short run after each scrum so they can practice arriving at the scrum and setting up each time.*
- *Playing one phase after a scrum to get used to breaking and being in position.*
- *Intersperse the scrum practice with other drills or forward related activities such as lineout throws – helps improve the ability to concentrate the mind and replicated game situations – also lots of scrummaging can become very boring and the players can lose their focus.*

Four good unit scrum machine practices

1. Individual technique – back to first principles: square, back straight, head up, hips below shoulders, legs bent, front studs of boot in the ground only.
2. Front row binding and engagement (changing the heights).
3. Aggression in engagement with good body position, front five and hooker timing.
4. One prop with flanker and lock (1, 4, 6 or 3, 5, 7).



A three man scrummaging practice, with a prop, a lock and a flanker.

SECRETS

of the scrummage machine

1. *Bungees: Make sure the bungees used on machines are flexible enough to challenge the front rows. A typical human scrum will move up and down and this needs to be replicated by the machine. There is less challenge (and far less applicability to the game) if the up and down forces are vastly reduced by using lots of bungees.*

2. *Choosing a scrum machine: "I would recommend a machine that has some form of measurement of the power so you can check whether the combinations, techniques and individuals are improving. Also a machine that has as much movement as possible (see above) is preferable to a more static impact machine."*

Nigel Horton of Predator and the Lions scrummage machine coach

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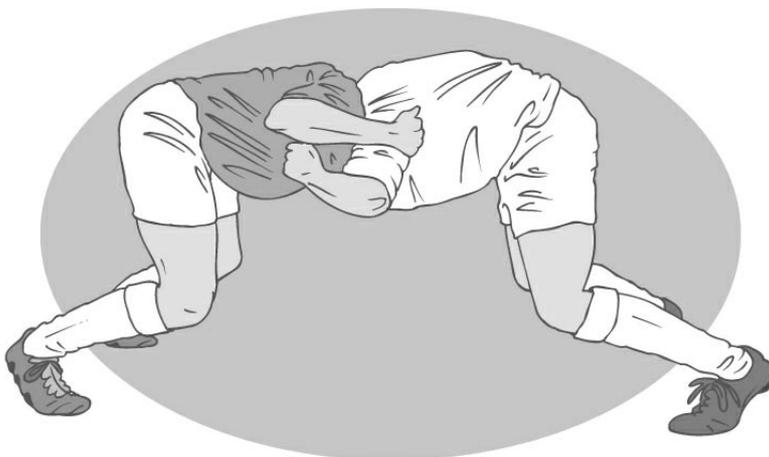
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One on one training

- This is a good training idea because there is no hiding place.
- It allows players to improve their technique because it is easy to spot how players can improve their positional play.
- Since the players are not bound to another team mate, it means they need to be more stable – this improves their awareness of a good body position.
- It enables the coach to spot those players who are aggressive.
- Most players really enjoy the contest (especially genuine front row players).
- It helps build balance, a key aspect of better scrummaging – a balanced player can produce more force in the scrum. One on one means a player can rely on other players to keep them balanced.



Always start from the correct body position before performing any one on one training.

Ensure that the right arm is bound over the left arm and the right hand is bound on the back.

What are the key safety aspects of training?

- Must be refereed – the coach needs to have a good sight of all the contests and with less experienced players, may even need to have very few contests happening at one time. Also be wary of more experienced players who become “over competitive”.
- Engagement rules must be followed and distances.
- One on one can be used as a warm up, but carefully managed and very gently initially, with no hint of a contest.
- Make sure the players are wearing the right equipment, e.g. boots, not trainers.
- Think carefully about the match ups – avoid big differences in strengths and sizes.
- Some unions recommend one to one training does not happen until the players have reached the age of 16.

Training ideas for front rows

Wrestling

- sumo – driving each other out of a small area.
- wrestling to the ground from different starting positions e.g. press up position, back to back, on knees.

Scrummaging

- one player drives up into another player, trying to lift their shoulders.
- one player getting very low and then driving up.
- rolling the shoulders against each other to get used to the action and reactions of the opposite prop (helps understand how the back stretches under different pressures).
- twisting shoulders – trying to get the other players shoulders so they are not facing square – one player tries to twist whilst the other tries to hold their position.
- simple drive forwards – one player drives, the other resists.
- engagement and bind – slowly at first and then build.
- binding and wheeling – first in tandem and then against each other.
- start/stop – one player is allowed to drive a foot and then the other player has to

then resist (helps a player reacting to a good shove with a counter shove).

Balance

Use one on one to promote better balance by players being able to adjust their feet and height of the engagement.

Drill 1: Ball lift: Two players bind with right arms and each use their left hand to pick up a ball between them. They then have to put it down. Change binding and hands. Make the players move to different points to pick up and put down a ball.

Drill 2: All four corners: Two players bind together in a small grid with 4 different coloured cones on the corners. Starting in the middle the players move from cone to cone on the orders of the coach, whilst maintaining the same axis they started on. This will mean forwards, backwards and sideways movements.

Drill 3: Front row limbo dancing: Two players hold a pole (e.g. flag post) at hip height. Two players bind and then “walk” sideways under the pole. Lower the pole depending on the success.

Drill 4: Messy ones: In a grid put a number of pairs bound together at different starting points. On a signal they have to move across the grid and back again. There must be only slow movements and definitely no contact.

SECRETS

of front row training

- *Let the players coach each other. There is much respect between front row players and there is plenty to learn from each other.*
- *After each section of a session, there should be feedback, but even better, get the players to comment as the session is progressing.*

11 Front row laws

Why is it important to know the laws?

- Safety: most of the laws have been made to ensure the safety of players in the scrummage. Attempts to circumvent the laws can lead to serious injury.
- Winning the ball: the laws give the side a very good chance of winning their own ball because they are hinged on good technique, e.g. binding, position of hips and shoulders.
- Penalties and free kicks: not understanding the laws properly may lead to loss of ground and/or points to the opposition.

Where can I find the laws?

- IRB website: www.irb.com. Law 20.

Youth team coaches

- Different countries have different laws for scrummaging at different age groups
- Key laws to check:
- At what age you are allowed to push;
- How far you are allowed to push;
- Whether the scrum is allowed to wheel;
- How many players are allowed in each scrum.

Key laws to remember

Front rows coming together

- Before the two front rows come together they must be standing not more than an arm's length apart. 20.1 (g)
- The front rows must crouch so that when they meet, each player's head and shoulders are no lower than the hips. 20.1 (g)
- The front rows must interlock so that no player's head is next to the head of a team-mate. 20.1 (g)

Calling in the engagement

- The front rows CROUCH and PAUSE, and then come together only when the referee calls 'engage'. This call is not a command but an indication that the front rows may

come together when ready. 20. 1(h)

- Free kick if the team does not follow the commands.

Front row players' positions.

- All the players must be in a position to shove. They cannot have their own feet crossed over, but can have their feet in front or behind another players in the front row. Both feet must be on the ground and shoulders should be no lower than the hips. 20.2 (a/b)

- Hookers must have both feet on the ground before they enter the scrum. Their front foot is not allowed in front of their own team's props. 20.3 (c)

Charging

- The front row must not set some distance from the opposition and then charge them. 20.1 (j)
- Penalty kick if a team charges another team.

Binding in the scrum

- Note – any binding infringement leads to a penalty kick against the offending side.
- All front row players must bind firmly and continuously from the start to the finish of the scrum. 20.3 (a)
- Hooker can bind over or under the arms of the props, but cannot be held so they have no weight on either foot. 20.3 (b)
- Loose-head binding: left arm inside the right arm of tight-head.
- Tight-head binding: right arm outside the left arm of loose-head.
- Props must bind on back or side of opposite player's jersey
- Props must not bind on chest, arm, sleeve or collar.
- There must be no downward pressure exerted by the bind. 20.3 (c/d)

Striking for the ball

- No player in the front row is allowed to strike for the ball until it has left the scrum-half's hands. 20.8 (a)
- Any player in the front row can use any foot to win possession once the ball enters the tunnel between the players. They can only use one foot at a time and they are not allowed to kick the ball out of the tunnel from where it came. 20.8 (b/c/f)

Body positions

- Referees are looking for any dangerous play that might compromise the safety of the scrum. Any body position infringement will lead to a penalty kick.
- Front row players must not twist or lower their bodies, or pull opponents, or do anything that is likely to collapse the scrum at any time. 20.8 (g)
- A front row player must not lift an opponent in the air, or force an opponent upwards out of the scrum at any time. 20.8 (i)

SECRETS**of playing within the laws**

- *Know what you are allowed to do so you are not surprised by any referee's interpretation.*
- *Read carefully the laws on binding and body positions to understand the amount of manoeuvre you are allowed.*

12 Problem solving

Q Why do my props keep going off balance before the engagement?

A The player has probably lifted their backside up and dropped their head. Bend at the knees and hips. It is possible to buy a "scrum harness" from equipment suppliers which also help encourage the right sort of engagement.



Typically bad pre engagement position - often because the player is lazy or tired. They must bend the knees, look up and lean forward.

Q I know that my props are supposed to keep their feet still on engagement, but it never seems to happen. What shall I do?

A

1. Think about the distance to the engagement. Too far away and the props close balance and shuffle.
2. Are the props going in square? Not square and the feet will have to adjust.
3. Are they in a dynamic body position before they engagement, e.g. on their toes.

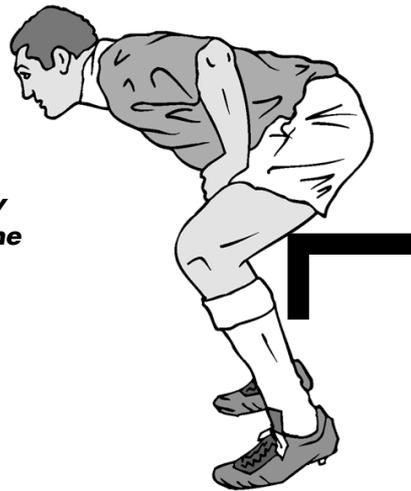
Q What makes for a good scrummage session?

A One theme for the session and continuing to return to the basics. Too many strategies and adjustments and the scrum can lose its cohesiveness. For instance, concentrate one session on binding, the next on foot positions. Little and often, building on what has gone before.

Q How do I get my props to “sit” properly before the engagement?

A Try the chair exercise – get the player to crouch with a chair behind them. If both their buttocks touch the chair at the same time, with their head up, then they are in the right position. They should only touch the chair, not actually sit down. This means they will be on their toes and ready for the engagement.

The prop sits on a bench with only the back of the thighs touching. The prop can only be balanced if they are in proper “sit” position.



Q The opposition are not letting our hooker hook

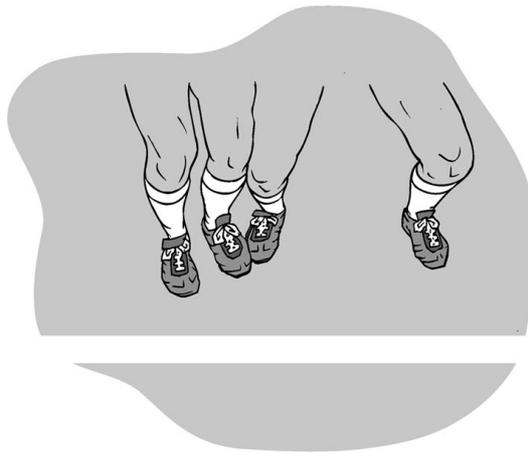
- A**
1. Loose-head should put pressure on the opposition tight-head so that they have to concentrate on scrummaging on the man in front of them, not the hooker.
 2. Loose-head should bind tighter and squarer to the hooker.
 3. Hooker should scrummage on their opposite number. This means more use of the right shoulder.

Q How can you prevent the tight-head prop from being twisted?

A Tight-head puts chin on chest after engagement and turns face outwards, returning to a square position.

Q How can my locks get their heads in between the props and hooker?

A Ideally, the locker uses their arm to pull out the prop's hips a little to allow the head in. If the lock is not strong enough or this type of bind is not convenient, then the prop will have to shift their hips a touch. One tip is for the prop to turn the inside heel towards their outside foot to allow more space for the head. Say "open and shut the door" for the inside foot movement



Prop turns inside heel towards outside foot to give more space for the locks head.

Q How can you prevent the loose-head prop from being twisted?

- A**
1. Your tight-head remains square and does not move backwards at engagement.
 2. Your loose-head gets a strong, early bind on the back of the opposition tight-head, to prevent the tight-head pulling the loose-head towards them.
 3. Your loose-head binds so they can have their left elbow tucked into their chest, thus reducing the opportunity to pull on by the tight-head.

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