THE PIVOT PLAYER – EVOLUTION AND DEVELOPMENT ADRIAN STOT LUXEMBURG HANDBALL FEDERATION



"The position of pivot is a very particular one. You play back oriented to the goal all along the game, you rarely touch the ball and when you do it's always for score" (Bertrand Gille).

SUMMARY

This study intends to show the importance of the pivot player position, the complexity of his tasks from two points of view: the qualitative aspect and the quantitative aspect. In the context of the European Championships, with the observation methodology I have tried to get as much information as possible about the entire activity of the pivot player in order to be capable to establish patterns, playing systems that allow finding good solutions, patterns that demand an active participation of the pivot player – qualitative dimension. Starting from two basic situations I have tried to put in evidence the importance of the pivot position along these patterns.

Based on statistic data provides by the EHF site, the quantitative aspect was put in evidence. The observation was made on the eight teams that participated in every Europe Championship since 2000 until 2012: Croatia, Denmark, France, Germany, Iceland, Slovenia, Spain and Russia.

Key words: handball, pivot, playing system, patterns

INTRODUCTION

For many years almost all the defenses were very closed, generally from type 6:0 and so, for many years, we used to see the pivots placed between the 2^{nd} and the 3^{rd} defenders or in the center of the defense between the two numbers 3 of the defense. His main tasks were to delay the lateral moves of the defenders by screening in order to give opportunities for the back players, create – with his screenings – spaces for the back players or create spaces for himself and to receive balls for scoring. In time the back players became more and more efficient, capable to make shot from 9, 10, 11 meters or more with good percentage and so the coaches were forced to look for solutions, strategies, new defense systems in order to confront the back players with unusual new situations, to push them further away from the goal and not to let them have clear shot. These defense systems are well-known: Yugoslavian 3: 2: 1, the Russian 5: 1, the Algerian 3: 3 or the famous French 4: 2 of Daniel Costantini. These are defense systems that gave to the pivot more opportunities and also more responsibilities. With more and larger spaces between the defenders and between the lines of the defense, his role became a very important one.

The position of the pivot is a special and privileged one by its very nature. If we compare the pivot with the other positions – back player or wing player – we can say that:

- 1. His movements are almost unlimited. At a given moment, according to the playing system of the team he can be placed in different position all along the 6 meters.
- 2. Most of the time he is in physical contact with the defenders by his placement in the heart of the defense.
- 3. His role is to play mostly for the back players, to facilitate their scoring chances and from time to time to receive the ball in order to score.

The aim of this paper is to analyze the importance and the development of this position. I will try to demonstrate that the position of the pivot plays a key role.

THE PIVOT'S PLAY – TASKS

At the beginning of the attack play we can often see the center back showing to the pivot the place to take. This is necessary because most playing systems are based on the pivot's actions. Finding a good solution to make a shot, by a back player or a wing, is the fruit of an surplus of players created thanks to a screening or a sliding of the pivot who succeeds in keeping two defenders occupied and so, somewhere else, the attacking team can take advantage of this and so have a good opportunity to shoot and score.

In handball literature the approaches concerning the pivot's play are almost the same. In the French magazine 'Former l'élite de demain' from April 2002, Pierre Alba says:

"This is the badly used player by the back players even though it should be their privileged relation.

His formation includes:

- a definition of his main tasks
- a static aspect
- a dynamic aspect

Main tasks

Break all defensive relations between defenders

With his placement related to the lateral moves of the defense, his screening and sliding, he must break the communication between different defenders and define the spaces for the attackers(...). Generally when the pivot is on the ball side, the player with the ball will try to put himself in a relation with the latter.

To succeed, it is obvious that the pivot must not run with the ball and must not occupy the center place between two defenders.

Allow the continuity in attack play

His in-and-out movements and the fact that he represents a support inside the defense should allow the back players to disturb the distribution for the defenders and to make the most of this situation.

The static aspect

Essentially it is about gaining a good position in the first place and in the second place about his placement related to the opponent and to the player with the ball. When the back

player goes towards the goal the pivot must be capable of putting himself into a direct relation with him by positioning in the following manner:

- by profile related to a defender and on the side of the back player
- with spread feet (one on the 6 m) in order to block the defender's passage
- an upright position with bent knees allows him to resist
- the arms must be free and prepared to catch the ball

The dynamic aspect

It is about the explosive part of his shake-off (taking advantage of free spaces) or to shoot' (ALBA, 2002, p. 53).

In the German magazine ''Handball Training'' from April 2007, Klaus Feldmann made an analysis of the pivots of the 10 top teams of the World Championship in Germany. He said that ''the pivots are rarely in ball possession – usually they can't realize a play advantage but only a position advantage. They depend on passes that they receive. Nevertheless, they have a main role in attack of the WCH's teams''(FELDMANN, 2007, p. 4)

To define the pivot's play Klaus Feldmann continues:

"The pivot's tasks can be very clearly defined. With the ball he must:

- Try to score
- Try to make a pass to another player (for example a back player who goes towards the goal, like give-and-go relation)
- Try to play the ball back to the back player before the attack is interrupted by the defense

The description of the pivot's tasks without the ball is not so easy.

On the one hand the pivot must open the central space of the defense in order to clear the way to the goal for the back players. In this action the pivot must not block the access towards the goal, so he must move in the opposite direction of the ball circulation so that the back players have more space.

On the other hand the pivot can move in the direction of the ball circulation and use the space created behind the defenders who go out to touch the back players.

Alternatively, the pivot can also act in a static way by his positioning. In this case his role will be to impede the lateral movements of the defenders.

The pivot can also create space for himself and receive balls''(FELDMANN, 2007, p. 4).

To complete these tasks the pivot player requires different qualities like:

1. Good physical condition

Most of the time he is in physical contact with the defenders, so his physical condition must be at high level.

2. Good skills of catching the ball.

The so-called "Specialist defender" does not allow any more to the pivot to catch the ball in confortable situation. Being capable to catch the ball with two hands is not enough anymore, he must catch the ball with one hand or catch the low passes, high passes, difficult badly orientated passes...

3. Good intuition when he receives the ball so as to know which is the best solution to turn and shoot

4. Explosive qualities

With or without the ball he must be capable of getting rid of his defender, turn and shoot in a very dynamic way

5. Very good motoric skills

The characteristics of this position demand good joints and muscle stability and flexibility. Catching and shooting are actions made almost all the time under the pressure of one or more defenders being pushed, pulled or in an unbalanced position.

6. Speed of movement/reaction/execution

Move fast and open up, turn around and try to beat the goalkeeper, make a decision in a very short time regarding the shot impact, all of this must be done in the shortest time.

7. Mental qualities

Generally he must play for his teammates. 80 % of the time he doesn't even touch the ball.

2×2 – The basic situation

The observation made during games shows that the playing situation of 2×2 – which involves the pivot – is one of the most difficult ones to treat and solve by the defenders. The reason is that in this situation one of the attack players, the pivot is usually out of the visual camp of one defender. To solve this situation the defenders must be very strong in communication and collaboration and even if they are, the attackers have many chances to score or to obtain a penalty throw. Another reason for the efficiency of the situation is its simplicity, only two players being involved. Two basic situations have been identified:

a) Playing against a lined-up defense system (for example 6 : 0). Two defenders are lined up with the pivot placed between them (fig. 1 and 2)



Fig. 1

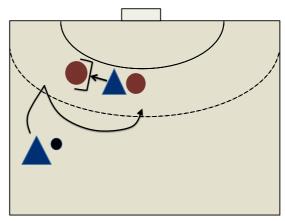


Fig. 2

This playing situation allows to play (for a short moment like a few seconds) at 2×2 , often by using a large space. The attacking team can cause this situation at all levels. That means that the pivot can be placed in the middle of the defense between the two numbers 3, between the numbers 2 and 3 or even between the numbers 1 and 2. The latter is more and more researched because in this case the pivot often has an advantage related to the weight imbalance (pivot – wing).

b) Playing against a defense system built on 2 or 3 lines (for example 3 : 2 : 1 or 3 : 3)



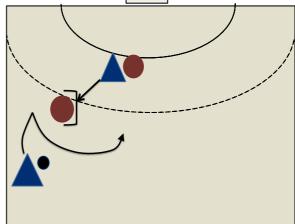


Fig. 3 Fig. 4

This situation allows also playing at 2 x 2 on important spaces. For the advanced defender it is difficult to defend because he doesn't see the pivot coming from behind.

DEVELOPMENT

Based on these two basic situations the coaches have developed different playing systems, adapted to different defense systems in order to benefit to the maximum. Thus we are able to identify the movements of different players and the ball circulation (patterns) that conduct the attacking team towards a 2 x 2 situation in a large space. The pivot's behavior is adapted according to different defense systems. The characteristics of the different defenses system were described in the French magazine "Approches du handball".

I. Defense 6:0 CHARACTERISTICS

"Strong points

- Good cover of the 6-meter line which often allows to cut the passes through the wingers
- Its density offers the chance to have a block of 2 or 3 players on a back player's shots
- Little space for the pivot player

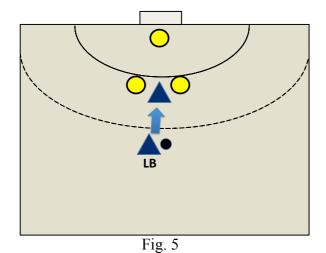
Weak points

- No pressure on the ball circulation
- The system becomes vulnerable when two defenders are placed in the same sector' (Approches du handball, 1994, p.12)

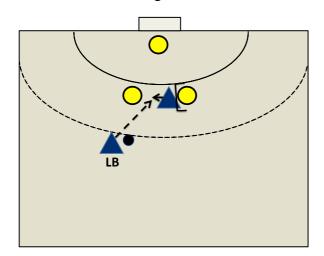
Mains tasks for the pivot:

- With his screens he must protect the back players when he shoots
- His screens are made in order to delay the lateral movements of the defenders
- Being capable of placing himself between two defenders and of creating enough space to receive the ball

Solutions:



If the defenders stay at 6 meters, the back player will take advantage of the screening of the pivot and take a shot.



If one defender moves laterally, the back player can pass the ball to the pivot.

Fig. 6

If one defender goes out to touch the back player, then there are two different solutions:

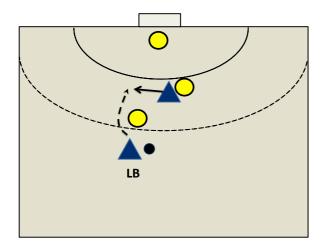


Fig. 7
The pivot slides behind this defender and the back player passes him the ball.

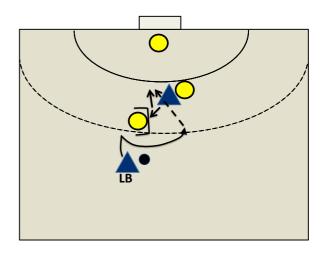
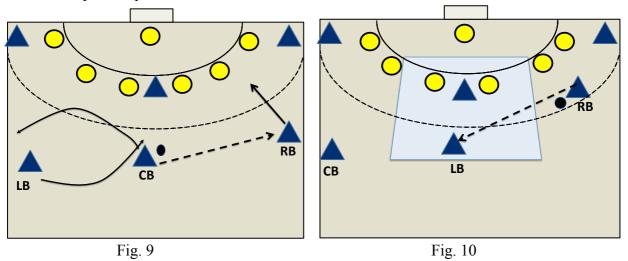


Fig. 8 Pick-and-roll

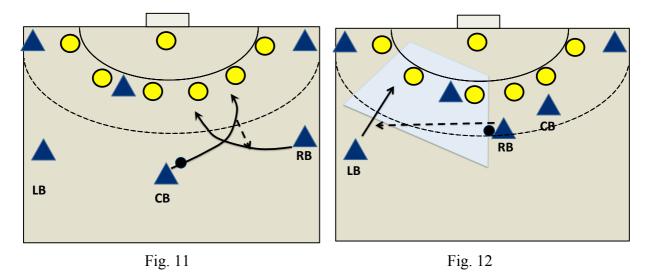
Examples of playing systems that lead to the situation of 2 x 2

1. The pivot is placed between the two numbers 3 of the defense



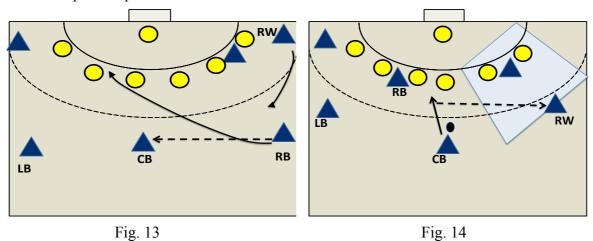
The center back gives the ball to the right back and changes position with the left back. With their movements, with or without ball, the center back and the right back try to keep the two numbers 2 from defense as far as possible from the center of the field (fig. 9). The right back attacks between 1 and 2 and gives the ball to the left back (fig. 10). And so the left back will receive the ball in the pivot's sector and try to take advantage of this 2 x 2 situation.

2. The pivot is placed between the number 2 and number 3 of the defense.



The center back changes position with the right back with a crossing movement (fig. 11). The right back goes towards the goal either to shoot or to mobilize the two defenders number 3. Then he passes the ball to the left back (fig. 12).

3. The pivot is placed between the number 1 and number 2 of the defense



The playing system starts with the transition of the right back after passing the ball to the center back. The right wing moves farther from the goal to catch the ball (fig. 13). The center back returns the ball to the right wing in a 2 x 2 situation on a large space (fig. 14). This situation is more and more researched because, in this case, the pivot often has an advantage related to the weight imbalance (pivot – wing).

This situation is presented step by step in the magazine "WHM TECH" in the WCh final game where France played against Denmark (Sweden-2011).





Fig. 15



Fig. 16



Fig. 17 Fig. 18

We can see that the transition of the right back and the parallel thrust of the center back (fig. 15) free a large space for the right wing and the pivot (fig. 16). "The right wing receives the ball in the direction of the defender number two, creates a dangerous situation in front of the goal by taking up a frontal basic position and by making a bounce pass to the pivot (fig. 17). The pivot catches the ball with one hand and immediately turns outside to the throwing arm side. The defender cannot prevent the successful dive shot" (fig. 18) (WHM TECH, 2011, p. 12-13).

II. Defense systems on 2 or 3 lines (3:2:1, 5:1, 3:3) CHARACTERISTICS

"Strong points

- The first line, which consists of 1, 2 or 3 players, disturbs the ball circulation between the back players
- The first line can also reduce the solutions for the back players
- Good protection in the center of the defense
- The position of the players in the first line is ideal in case of a fast brake

Weak points

- Weak coverage of the 6 meters line
- The space between the defenders is larger
- Difficult distribution in case of players circulation
- High energy consumption" (Approches du handball, 1994, p. 14)

Mains tasks for the pivot:

- He must use the free space behind the players in order to receive balls
- Try to put himself in a relation (type pick-and-roll) with a back player or a winger
- He must allow the continuity of the attack play by playing between the defenses lines, demanding the ball in case of a very aggressive defense

Causing situations of 2×2 on large spaces is based on the same principle. By different movements, with or without the ball, the back players or the wingers try to liberate a big sector where the pivot can have a relation like pick-and-roll with a back player or with a winger.

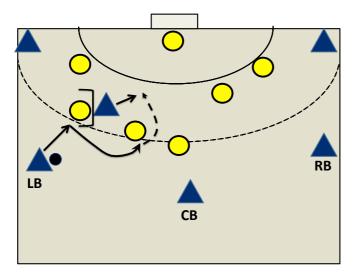


Fig.19

Figure 19 Example of pick-and-roll situation pivot – back player.

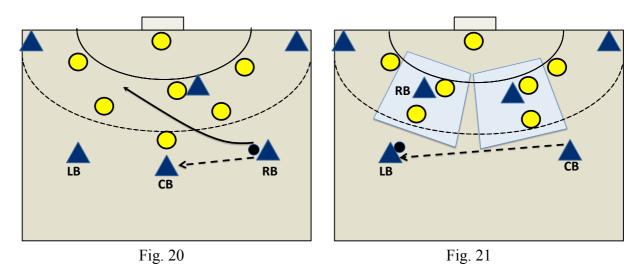
As we have seen before, one of the weak points of defense systems on 2 or 3 lines is the difficulty of the distribution in case of player circulation.

The coach of Montpellier (France) Patrice Canayer has been asked to tell his opinion about the importance of the pivot position. He said that "…his role is more and more important. The back players are bigger and stronger and with their volume of play, they cover an important area. Sometimes they give the impression that there are too many players at the 9 meters and they are bothering each other. So today, playing with two players inside the defense in order to disturb the good functioning of the system seems to me an interesting field to explore and this is done more and more by many nations…

That's why it is very important to teach all the young players, no matter which position they play, the principles of the inside play: blocking, open up, sliding... I think that it is very important to spend a lot of time doing this with the young players; at some point, each player will find himself in a pivot position trying to establish a relation with a back player and it is important for him to know what to do''.

(Patrice Canayer, www.handzone.net)

The basic idea is that, with different types of transition (of one back player or one wing), the attacking team starts playing with two pivots. In this way the defense is split into two and there are solutions to be found on 2 x 2 on each side of the field. Below you can see an example of transition made by the right back.



The right back passes the ball to the center back and makes a transition to the opposite side on the 6 meters (fig. 20). The center back passes the ball to the left back and changes his position by taking the place of the right back (fig. 21).

In the same way the wing player or the center back can make transitions.

STATISTICS

In order to establish the quantitative dimension of the pivot position, based on the statistics data offered by the EHF on its internet site, in table 1 I have calculated the percentage of the goals scored by the pivots from the total number of the goals scored by their team during the last 6 final tournaments of the European Championships (from 2000 to 2012). The observation was made on the eight teams that participated in every championship. With very few exceptions the teams played 6 to 8 games in each tournament.

TABLE 1 EUROPE CHAMPIONSHIPS 2000 – 2012 PIVOT'S CONTRIBUTION

	CROATIA	DENMARK	FRANCE	GERMANY	ICELAND	SLOVENIA	SPAIN	RUSSIA
2000	11%	9%	17%	8%	10%	14%	13%	9%
2002	4%	7%	14%	14%	12%	23%	9%	7%
2004	11%	16%	11%	11%	9%	15%	6%	10%
2006	16%	18%	14%	18%	13%	4%	11%	7%
2008	13%	15%	7%	13%	9%	11%	18%	12%
2010	8%	10%	13%	8%	12%	13%	13%	14%
2012	8%	11%	12%	10%	10%	7%	7%	15%

COMMENTS

- 17 times the percentage are below 10%
- 31 times the percentage are between 10% and 15%
- 6 times the percentage are above 15%

Generally the pivots score 10 to 15 percent of the total numbers of the goals scored by the team.

In table 2 I have calculated the personal performance of the pivots.

TABLE 2 EUROPE CHAMPIONSHIPS 2000 – 2012 PIVOT'S PERSONAL PERFORMANCE

	CROATIA	DENMARK	FRANCE	GERMANY	ICELAND	SLOVENIA	SPAIN	RUSSIA
2000	56%	87%	65%	68%	80%	79%	71%	81%
2002	50%	50%	78%	58%	71%	72%	53%	58%
2004	61%	81%	55%	64%	61%	71%	68%	68%
2006	57%	75%	64%	85%	89%	75%	82%	76%
2008	75%	70%	85%	69%	68%	74%	79%	52%
2010	64%	66%	75%	82%	76%	65%	73%	81%
2012	66%	78%	74%	70%	82%	71%	74%	76%

COMMENTS

- There are no percentages below 50%
- Only 4 times the percentage is between 50% and 60%

- 22 times the percentage is above 75% sometimes even 85% (!) Generally the pivot has the best percentage of all positions.

These statistics show the concrete contribution in terms of pivot's goals. But during the game there are also other aspects, maybe less obvious, but with the same importance that we have to talk about.

1. Penalties

Usually the most exposed position where the penalties are obtained is the pivot position. The pivot obtains more than 25% of the penalties of a team. In table 3 the numbers represent:

• * goals from penalty throws / ** total goals of the team / *** percentage

TABLE 3Goals scored by penalty throws

	CROATIA	DENMARK	FRANCE
2000	21*/146**/14,3%***	22/143/15,3%	14/173/8%
2002	15/70/21,4%	13/212/6,1%	26/180/14,4%
2004	26/222/11,7%	17/240/7%	21/189/11,1%
2006	35/229/15,2%	29/253/11,4%	22/243/9%
2008	22/212/10,3%	25/233/10,7%	20/231/10,8%
2010	34/207/16,4%	21/198/10,6%	23/225/10,2%
2012	26/216/12%	20/216/9,2%	19/156/12,1%

For the three teams the percentage of the goals scored by penalty throws ranges from 6% (Denmark-2002) to 21% (Croatia-2002).

This means that even if the pivot doesn't score we can say that he assists the goal by obtaining most of the penalty throws of his team.

2. 6X5, 6X4 (superiority play)

When we are talking about this situation the objective of each team is to score 1 or 2 goals and not to take any. The important thing is that all the strategies, the playing systems focus on the pivot and even if he doesn't always score, his team will take advantage of his actions: screens, open up... Success or failure depends on how well the pivot realizes his task.

3. 5X6, 4X6, 4X6 (inferiority play)

In this situation the attacking team try to save time, to keep the ball possession as long as possible despite being dangerous at the same time (if not there is a risk of passive play).

And so, after a first attempt, which includes a playing system, the easiest and most efficient way to save time is to find solutions to give the ball to the pivot and obtain free throws.

4. Defense

Last but not least, we must not forget the defense. Due to the specific qualities of the pivots, they are the perfect candidates to occupy key positions in the defense.

DISCUSSION

First of all, today, the teams have more time to practise. This fact gives them the possibility to train more than one system of defense.

Secondly, it is known that different defense systems require different approaches in order to find solutions. As mentioned above, the pivot has different tasks.

Moreover the handball of our days is faster and more physical.

Based on these these statements we ask ourselves: is that possible to have one pivot capable to fulfill all the required tasks?

To find an answer to this question, let's take a look at Klaus Feldmann's analysis of the pivots of the 10 top teams after the World Championship of 2007 in Germany. He put in a chart statistics data showing the average of the time played per game and also morphological data.

PLAYER	PLAYING TIME/MATCH	SIZE/WEIGHT
	•	•
SCHWARZER (GER)	24 min	1,96/100
JURECKI (POL)	28 min	1,93/100
KNUDSEN (DEN)	57 min	1,89/95
GILLE (FRA)	44 min	1,87/98
VORI (CRO)	41 min	2,02/102
CIPURIN (RUS)	34 min	1,90/110
URIOS (ESP)	28 min	1,93/105
GUNNARSSON (ISL)	22 min	1,92/100
GAL (HUN)	47 min	1,93/115
LUBEJ (SLO)	37 min	1.94/95

TABLE 4

(FELDMANN, 2007, p. 6)

We can see in the middle column that only 4 pivots played more than 40 minutes. This is understandable because the main characteristics of the position are: the pivot plays in physical contact with the defenders almost all the time (exocentric-isometric-concentric muscle work more than in any other position) and in defense he usually has a key position.

Maybe it is more interesting to look at the right column (size/weight). We can see some important differences in the morphological data of the pivots going from 187cm/98kg (Bertrand Gille, France) to 202cm/102kg (Igor Vori, Croatia). Let's analyze the two 'extremes':

Bertrand Gille

- Physically very strong
- Good mobility, very efficient in the play between the lines of the defense
- With his screens he helps a lot the back players
- Good capacity of catching the ball, especially the bound passes
- Very good motor skill, capable of taking shots from any position, pushed or pulled
- In most cases, when he has the ball either he scores or he obtains a penalty throw
- In defense he plays in the middle

Igor Vori

- Impressive size/weight measure very difficult to defend against him
- Capable to catch the very high passes
- Often he takes advantage of the weight imbalance
- The back players take profit of his screens, especially when 2 defenders are forced to be near to him
- When he has the ball he usually obtains a penalty throw but he also scores
- In some situations he is also capable of making shots from 8 or 9 meters
- In defense he plays in the middle

If we compare the qualities of Bertrand Gille and Igor Vori it isn't difficult to say that we have two different morphological profiles with two different styles. The personal qualities recommend Gille as a very efficient pivot against the defenses on 2 or 3 lines and Vori against the lined-up defenses type 6:0. But we can say that both of them are highly important in their team.

Talking about the two great pivots, Bertrand Gille was elected the best player in the world in 2006 and Igor Vori was elected the best player of the World Championship in Croatia in 2009. The interesting thing is that they started to play for the same club – HSV Hamburg – in 2009.

This fact could provide an answer to our question: in a team, it is more efficient to have two pivots with different qualities that complement each other. Thus, no matter which defense system the opponent has chosen, we can always find a solution to beat it.

CONCLUSIONS

The pivot scores between 10 to 15 percent of the goals and he obtains most of the penalty throws.

His scoring percentage is the best of all players.

Even if he doesn't have the ball he must accomplish important tasks in every situation: equal number, superiority play, inferiority play.

His actions – screens, open-ups – are useful for the back players and the wingers.

He is one of the best defenders and he is usually placed in a key position.

Based on these statements we can say that the pivot position is one of the most important ones.

During practices the coaches must spend enough time to develop the relation between the pivot and the back players and wingers. Every player must understand the role of the pivot in order to be capable of taking profit of his work.

All players must have a minimum knowledge about the individual techniques of the pivot position.

The position of the pivot plays a key role.

Before the European Championship of 2012 in Serbia, the former player Stefan Kretzschmar said in an interview that ''The teams that win titles are those who have an outstanding center back and an outstanding pivot like France, Croatia and Denmark''. (Kretzschmar, 2012).

Three weeks later Denmark became European Champion.

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