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FEATURES OF PHYSICAL TRAINING SKIERS SPRINTERS

***Аннотация:** с появлением такой дисциплина в лыжных гонках, как спринт, появилась необходимость подготовки спринтеров-лыжников. Автор приходит к выводу о необходимости поиска новых методов и средств подготовки лыжников. Это в свою очередь требует совершенствования учебного процесса.*

***Ключевые слова:** лыжный спринт, физическая подготовка, тренировочный процесс.*

***Abstract:** with the advent of skiing sprints, there was the need for training sprinters skiers. We must look for new methods and means for the preparation of skiers is to sprint. It requires improving the training process.*

***Keywords:** ski sprint, physical training, the training process.*

Skiing is one of the mass sports cultivated in the Russian Federation. Owing to availability and influence on person's organism cross-country skiing experiences the greatest popularity. Over the last 10 years, there were considerable changes in programs of competitions in cross-country skiing at all levels. The ski sprint courses entered a calendar of competitions (800–1800 m) have increased quantity of the medal events at competitions of various level, including the Winter Olympic Games. Training of ski-sprinters has purposefully started in national teams. In this regard, there is a problem of determination of the most important physical qualities, which are necessary for the ski-sprinters.

In the course of the analysis of scientific and methodical sources, it has been revealed that the most important physical qualities for a ski-sprinter are speed, force, endurance. We will study these qualities in more details.

High-speed qualities or speeds are an ability to make physical actions in the interval of time, minimum for these conditions [1].

According to the trainer of the German national team, Peter Schlikenrider, high-speed qualities are very important for ski-sprinters, both on start, and in the course of race, high intensity and rapidity of competition demands speed of reaction [2].

Speed of reaction is to a certain extent an inherited quality and it is difficult to develop in the course of training. Nevertheless, without paying sufficient attention to speed development, it is impossible to compete in sprint competitions.

The factors defining development of high-speed abilities are types of higher nervous activity (mobility of nervous processes); a ratio of fast and slow fibers (80% – fast, 8% – intermediate); level of proficiency in equipment; level of enslaving of muscles antagonists; level of dynamic force; speed of motive reaction; speed of the single movement; speed.

Some other factors influence on speed. They are frequency of muscular contractions; rhythm, length of «step»; «coupling»; movement on inertia; ability to relax muscles instantly after performance of labor movements.

Speed in cyclic physical actions is defined not only by the rate of muscular contractions, but also by the speed of movement in space.

Force is also one of key qualities necessary for the ski-sprinter. Big muscles with an «explosive» or fast force carry out the fast movement in sport with.

Explosive force is the integral quality of sprinters, which need to be developed. At starting moment and, acceleration explosive force is involved. Without having good explosive force, victory is impossible.

Starting force is also very important for the sprinter's skier as on start a lot of things are done. Having the reserve will help to pass a distance successfully.

The accelerating force is important at the moment of extreme intensity. According to the trainer of the Austrian national team on biathlon Arndt Hemersbakh, in the course

of power preparation various power qualities develop: maximum force, explosive force, and also power endurance [3].

You shouldn't forget that skiing belongs to cyclic sports and, therefore the main emphasis is placed on endurance development. This physical quality is the basic (along with force) quality of skiers-racers. All other qualities – speed, flexibility, dexterity, balance, and coordination should be referred to as additional, but closely connected with the main ones.

The world famous expert of trainings on endurance Peter Jansen considers that with the development of endurance operability of all bodies and systems of the athlete increases, the organism begins to work «at big turns», pulse rate decreases that demonstrates improvement of the organism.

The general and special endurance are distinguished. The general and (nonspecific) endurance is an ability to perform the physical activity for long time involving many muscular groups in action and indirectly influencing sports specialization.

The general endurance, as it is a basic quality, is very important for ski-sprinters.

Power endurance is characterized by interrelation of force and endurance in the main exercises and shown in high rates in run and in movement on skis on the rugged district. High-speed and power endurance is characterized by interrelation of force and speed with endurance and shown in good results in movement on skis on various reliefs.

Development of certain physical qualities has to be coordinated with the course of age formation of an organism. In development of any person there are periods when certain qualities are developed easier and are more simply fixed, and there are such periods when physical qualities are hardly, developed or aren't developed at all. Endurance of an athlete depends on perfection of his technics; ability to carry out the movements freely, a level of speed development force, wills qualities. In conclusion, it is possible to note that the most important physical qualities for the ski sprinters. Are speed force and endurance. The emphasis in training process of skier's sprinters is made on these qualities.

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