The Olympic Bar

Ed Coker, C.S.C.S.
Strength & Conditioning Coordinator
The Therapy Center
Knoxville, Tennessee

The most durable, functional piece of equipment in your weightroom is the Olympic bar. Due to its versatility and relative low cost, the Olympic bar finds a place in almost every high school and college weightroom budget. Proper preventive care and maintenance will extend the life of Olympic bars. The purpose of this article is to educate coaches and athletes alike in the proper selection, care and maintenance of Olympic bars.

Selection

The advantage of an Olympic bar over a regular bar is the rotating sleeve which allows the plates to rotate freely around the bar without restricting the lifter's movement. Further separating Olympic bars from regular bars are the Olympic power bar and the standard Olympic bar. Upon close inspection these two bars would appear to be identical except for additional knurling in the center of the Olympic power bar. Additional center knurling provides greater friction on the back of a squatter and helps to prevent the bar from slipping down the back during the squat. The Olympic power bar is designed to hold greater poundages and is less flexible than the standard Olympic bar. Athletes performing the bench press (and other pressing movements), squat and dead lift usually prefer the Olympic power bar.

The standard Olympic bar lacks the center knurling of the power bar, is more flexible, and is not designed to hold as much weight as the Olympic power bar. Athletes performing pulling movements (power clean, hang clean, snatch, high pull) usually prefer the standard Olympic bar due to its greater flexibility or "spring" which provides a smoother action. If any of these movements were attempted with a power bar, the movement would feel stiff and less fluid.

Olympic bars, whether standard or power, differ in the area of tensile strength. Olympic bars with greater tensile strength offer better flexibility and are less likely to bend. When confronted with an unusually low-priced Olympic bar, investigate thoroughly, since Olympic bars with greater tensile strength cost a bit more but provide greater quality and will not end their usefulness by becoming bent.

Prevention

Olympic bars are incredibly durable and even in the absence of any care or maintenance will still support various amounts of weight, provide exceptional balance and smooth bar rotation within the end sleeves. In spite of their durability, however, Olympic bars are susceptible to damage. Probably the most significant, yet subtle, damage to an Olympic bar, either standard or power, is the possibility of becoming permanently bent. The human eye cannot readily identify a bent bar, but a simple spin of the shaft of a bar that is bent will result in an uneven rotation. A bent bar is also easily detected via bench pressing since a bar that is bent will feel as if it has a "hump" or high spot and a tendency to roll out of your hands.

Several factors are responsible for bars being bent. The first and most common factor is a combination of supports being too close together and weights being left on the bar after use. The supports for Olympic bars should be nearly as wide as the inside of the bar so as to equally distribute the weight of the bar and the plates, or the bar alone. When
supports are too close together, the bar may flex at these points, stay flexed for a long period of time (especially if plates are not stripped from the bar when not in use), and become permanently bent as a result. A good weightroom rule to prevent bending the bar, as well as maintaining an orderly weightroom, is to always take all the plates off the bar when the bar is not in use.

Another cause of Olympic bars becoming bent is the result of athletes sitting or standing on a weighted bar. To eliminate the possibility of a bar becoming bent due to athletes using them as a chair or balance beam, a standard weightroom rule should be to never lean, sit or stand on a bar.

Still another cause of bent Olympic bars is the result of a loaded bar being dropped unevenly from various heights instead of the lifter keeping hands in contact with the bar as he returns it to the platform. Coaches should strongly encourage, if not insist, that athletes never drop the bar from any height.

**Maintenance**

So little maintenance is needed for an Olympic bar that some forget about conducting any maintenance at all! Regular inspections of Olympic bars, followed by routine maintenance, as described in the following paragraphs, will extend indefinitely the life of any Olympic bar.

First of all, consideration must be given to the weightroom itself and the amount of moisture present, since too much moisture results in oxidation of the bar and, ultimately, rust. To combat excess moisture, insure that there is proper circulation of air throughout the weightroom by means of open doors and windows, weather permitting. If weather does not permit or if the doors and windows are not conducive to good air flow, a fan or fans become a necessity to compensate for lack of ventilation. Ideally a weightroom should have air-conditioning and/or a dehumidifier, but ideal conditions are usually the exception. If excess moisture in the air is a problem, consider the negative effects to the bar when it comes in direct contact with water. Care should be taken to insure that any leaks from the ceiling or water pipes are repaired and not allowed to drip onto bars (or plates and dumbbells). If oxidation does appear on an Olympic bar, some liberally applied naval jelly will remove the rust and accumulated deposits.

The ounce of prevention necessary to postpone oxidation as well as promote overall maintenance to the Olympic bar, especially the sleeves, is the regular application of a thin coat of a light oil or a product such as WD-40. This regular application will also insure the smooth rotation of the end sleeves around the bar as well as allowing plates to slide on and off easily. Be certain, however, that collars are used after applications since the combination of a freshly lubricated sleeve and the slightest imbalance could result in injury. Caution should also be taken when considering applying any lubricant to the shaft of the bar. If a light oil or WD-40 is applied, the bar should be wiped thoroughly and taken out of use for a short time with warnings given to athletes when the bar is back in use.

An obvious need for maintenance occurs when an inspection reveals an end sleeve that is loose and separating from the shaft of the bar. Closer inspection will almost always find the end screw loose and “backing out” from the sleeve. However, a few turns of the appropriate allen wrench will result in the end sleeve fitting tightly and rotating properly.