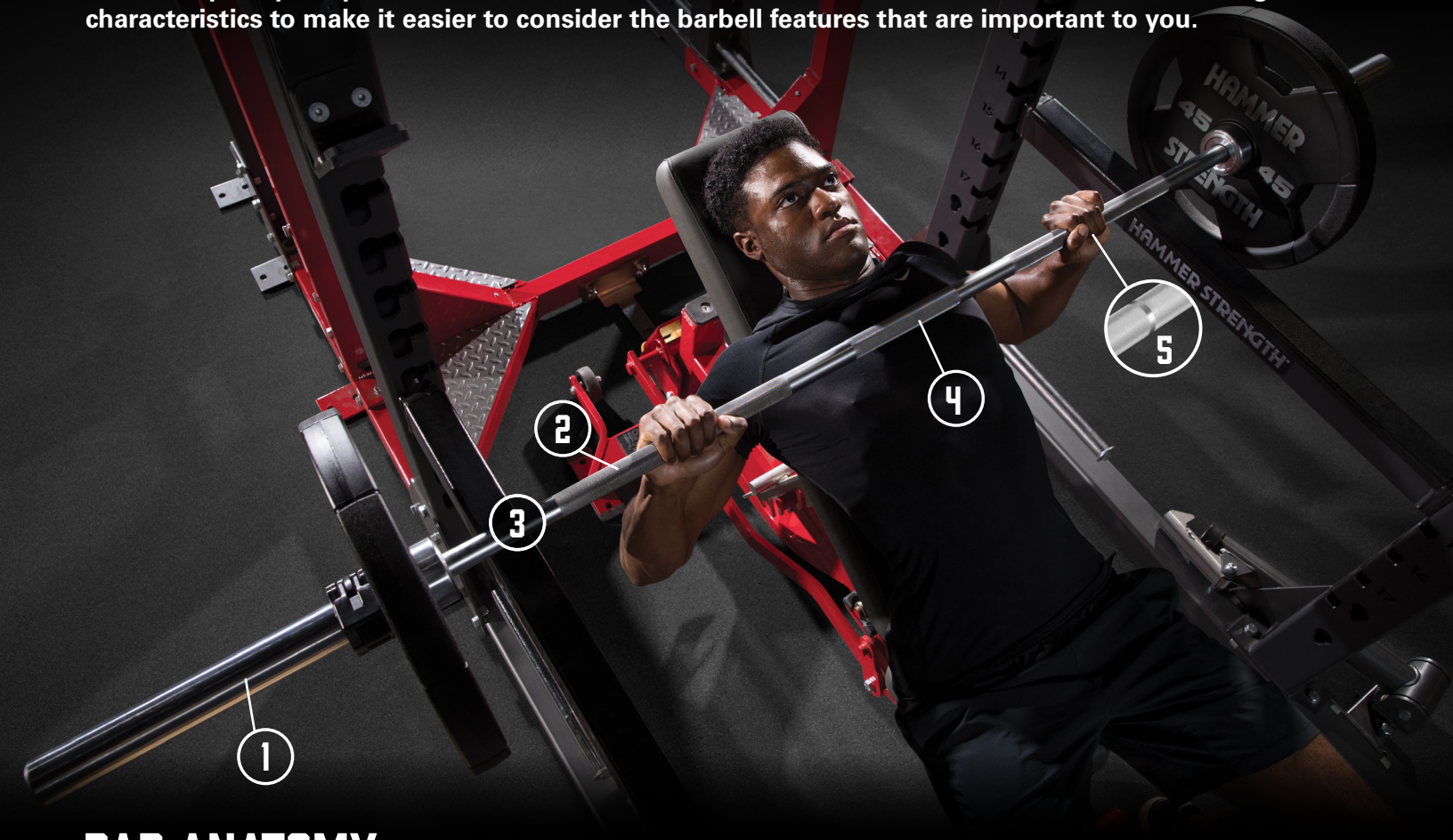
HAMMER STRENGTH®

# BARBELL BUYER'S GUIDE

**There are plenty of options when it comes to barbells. We've broken down some of the defining characteristics to make it easier to consider the barbell features that are important to you.**




## BAR ANATOMY

### 1 BAR SLEEVES

- Hold weight plates
- Various loadable sleeve lengths
- Rotates on bearings or bushings

### 2 KNURLING

- Provides grip
- Aggressiveness varies by bar and lifting type
- Pattern varies by bar type

### 3 SHAFT

- Varying diameter dependent on bar type
- Varying flexibility/whip
- Several materials and finishes available

### 4 CENTER KNURL

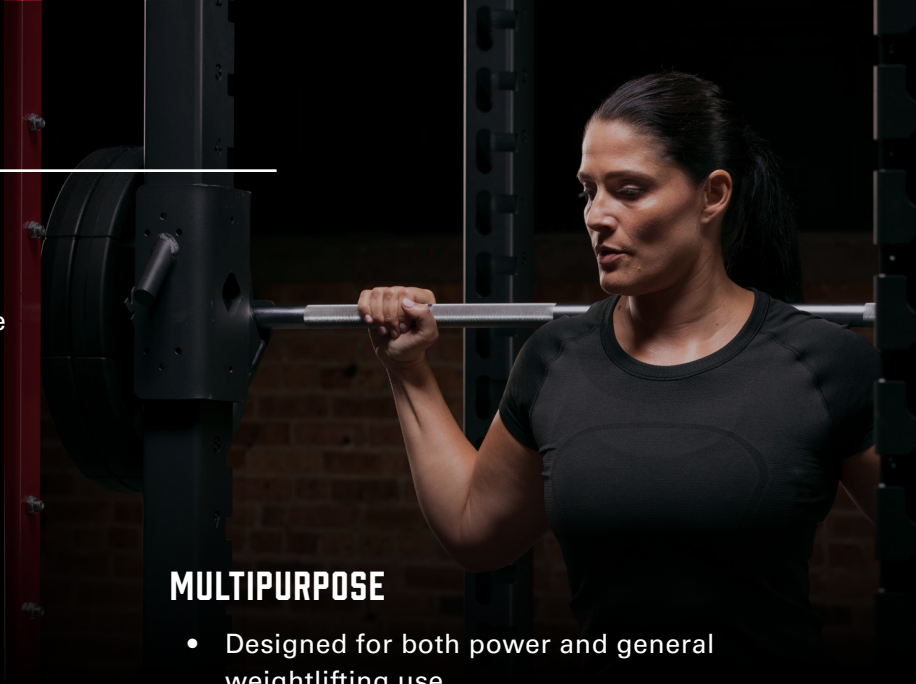
- Only present based on type of bar
- Commonly used for grip during back squats

### 5 KNURL MARKS

- Different width spacing based on bar type
- Some have multiple markings
- Used to space hands during lifts

# STANDARD BARS

**The three most common types of barbells:**



## OLYMPIC

- Designed primarily for Olympic lifts like the snatch, and the clean and jerk
- More whip/flexibility due to the explosive nature of Olympic lifts
- Manufactured to International Weightlifting Federation (IWF) specifications

## POWERLIFTING

- Designed for powerlifting movements like the squat, bench press and deadlift
- Stiff bar for lifts that are more gradual and often require more weight
- Shaft diameter is larger than Olympic bars at 29mm

## MULTIPURPOSE

- Designed for both power and general weightlifting use
- Commonly found in functional training and free-weight areas due to their versatility
- Knurl pattern removed on area where the bar is racked to reduce wear

# SPECIALTY BARS

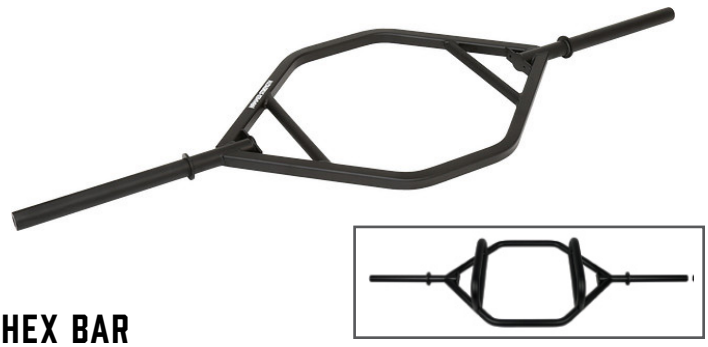
**Wide varieties of specialized bars focus on specific movements or varied grips.**

## SWISS/FOOTBALL BAR

A specialized bar with multiple grip positions, typically used for pressing and rowing movements

## EZ-CURL BAR

Shorter bars that feature angled grip positions. Most commonly used for bicep curls and the tricep press.



## HEX BAR

Also known as a trap bar, it allows users to deadlift, farmer walk, and shrug from the center, in-line with the weight plates. Single and dual height options allow for different starting height positions.

## TRAINING BARS

Similar to standard bars but vary in weight as well as the length of the shaft and bar sleeves. Often used for technique practice or learning specific lifts.

*Made in the USA*

# COATING

**This refers to what the exterior surface treatment of the bar is made of and is important when it comes to the rate at which the bar goes through oxidation or begins to show signs of rust.**

MORE

CORROSION RESISTANCE

LESS

## STAINLESS STEEL

Stainless steel is most commonly used in high-end weightlifting bars. It is the most resistant to rust over the course of the bar's lifetime. Absence of any coating offers maximum grip and knurl feel.

## CERAKOTE

Cerakote is a polymer/ceramic composite coating that enhances abrasion, corrosion and scratch resistance. Cerakote color options allow for customization. Athletic facilities can choose barbell colors that match their logo. Fitness facilities can color-code barbells for specific areas of the facility. For example: red power bars are for use on benches, blue bars stay on racks, etc.

## CHROME

Hard Chrome offers good protection from rusting. It's one of the most frequently used coatings in the market.

## ZINC

Protects the barbell even more from rust than the bare steel and black oxide finish. However, zinc can wear at a faster rate and potentially become susceptible to rust.

## BLACK OXIDE

An economical option that may require maintenance to reduce oxidation and preserve appearance.

## BARE STEEL

Excellent grip with a natural feel. However, with no protective finish, bare steel will rust if not regularly maintained.

## SALT SPRAY CORROSION TEST

Salt spray testing accelerates the effects of normal corrosion on Olympic bars. Test results above clearly show how well Cerakote (left side) and stainless steel (upper right) bars resist corrosion.

# SLEEVE CONSTRUCTION

**Each bar sleeve has either bearings or bushings inside which allow the shaft of the bar to rotate.**

## BEARINGS

- Usually found in competition Olympic Bars
- Rotate smoothly and with minimal friction
- More durable and last longer than bushings
- Barbells typically feature either ball bearings or needle bearings

## BUSHINGS

- Cylindrical composite materials provide good rotation
- More cost effective, but tend to wear out faster than bearings

## HYBRID

- A combination of bushings and bearings or two bearing types
- The combination allows the sleeve to rotate more smoothly and longer than bushings alone
- Dual-bearing hybrids offer the least friction while handling heavy loads


# KNURLING

**Knurl is the pattern formed into the bar's surface to provide grip during use. The intensity or amount of grip ranges from smooth/passive (less grip) to rough/agressive (more grip).**

## OLYMPIC BARS

- Generally have less aggressive knurling than powerlifting bars
- If present, the center knurl is generally less aggressive to avoid scraping skin during some movements
- Knurling generally reaches the edge of the sleeve to accommodate a wide grip on exercises like the snatch
- Symmetrical knurl marks are spaced 36" (914mm) apart from each other

## MULTIPURPOSE BARS

- Generally have a more aggressive knurl as they are used for all types of light and heavy lifting

## POWERLIFTING BARS

- Generally have more aggressive knurling than Olympic bars to improve grip on heavier lifts like the deadlift
- Center knurling provides more grip surface on the exerciser's back when doing squats
- Symmetrical knurl marks are spaced 32" (813mm)


## WHIP

Bar whip accounts for the flexibility of the bar. Olympic bars have more flex than power bars and multipurpose bars.

Whip can benefit lifters who use this motion to create momentum at different stages of a lift.

Bar material, heat treatment, and diameter are key elements of whip.

## STRENGTH

Hammer Strength bars are dynamically load tested. We lift and cycle/bounce the bar fully loaded numerous times including drops.

Our bars are also statically load tested. At extreme loads they are slowly lifted off the ground and thoroughly inspected for yielding or degrading.

**Hammer Strength barbells are proudly made in the U.S.A.**