

## CH Series Description

Type CH clutches are designed specifically for heavy duty clutch and brake applications, and can be air or hydraulically actuated.

The friction disc packs are suitable for either wet or dry operation. Actuation is accomplished through internal shaft and clutch passages.

When used as a wet clutch, coolant oil may be used as a splash or spray, or forced through the friction disc pack from an internal shaft passage.

The clutch hub is bored and keyseated for shaft mounting. Torque is transferred from the disc pack to a splined drive ring.

### Operation:

Pressurizing the cylinder with fluid or air forces the piston to clamp and lock the friction and separator discs, and release springs. Torque is transferred through the clutch to the drive cup. When pressure is removed, the release springs separate the separator discs and maintain a running clearance between separator and friction disc surfaces.

### Standard Specifications:

Type CH clutches are available in seven sizes with torque ratings from 49,000 lb-in (5532 Nm) to 1,280,000 lb-in (144,000 Nm).

Maximum allowable pressure is 200 psi (13,8 bar) for wet operation and 120 psi (8,3 bar) for dry operation.

Standard operating speeds are from 1 to 2200 RPM. Stronger release springs are available for disengagement at higher speeds.

### Modified Standards:

Higher torque ranges and actuation pressures are available to meet customer's specific design requirements.

## Advantages:

### American Bureau of Shipping (ABS) Type Approval

Survey society approved for marine applications requiring independent survey. Other classification society certifications such as Lloyd's and DNV are also available.



### Where used:

- Marine Propulsion
- Marine Mooring Winches
- Mine Hoisting Equipment
- Overland Mining Conveyors
- Draw Works
- Fan Drives

### Self Lubricating Seals

Long-wearing, self-lubricating seals minimize premature twisting failure and require no lubrication, which decreases maintenance costs and downtime. Temperature ranges for standard seals range from -65°F to +300°F (-54°C to +149°C).

### Long Wearing Components:

The cylinder housing and all splined surfaces are specially treated to minimize wear and increase corrosion resistance.

### Positive Mechanical Lock-Up "Come Home" Feature:

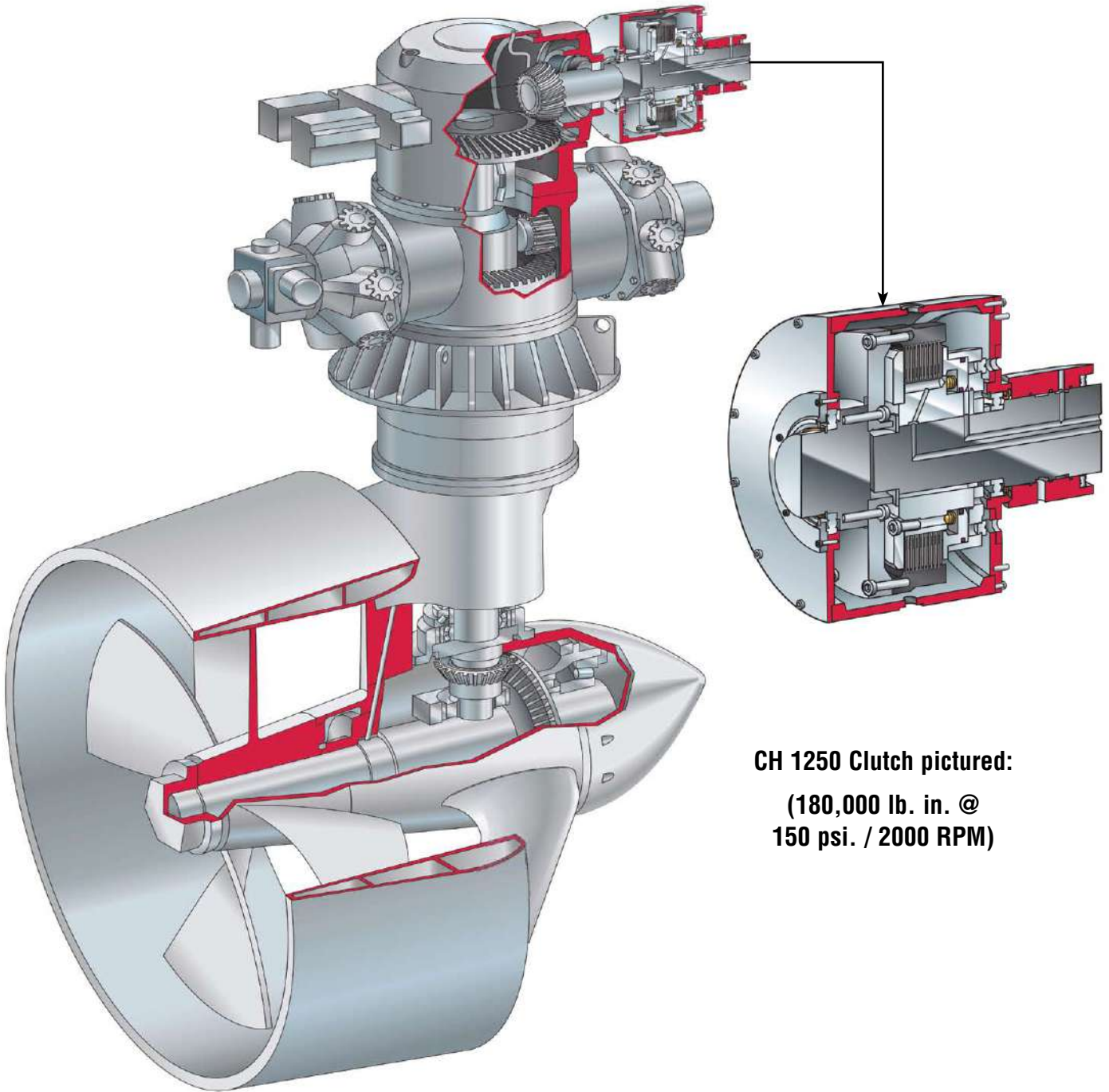
Provides positive engagement for emergency operation.

### Smooth Engagement:

Sintered Bronze Friction Material, operating in oil, provides a low static-to-dynamic torque ratio for smooth, long-lasting, high-energy performance.



## Typical CH Hydraulic clutch for "Z-Drive" type marine application



**CH 1250 Clutch pictured:  
(180,000 lb. in. @  
150 psi. / 2000 RPM)**



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