

## Pull Type Bearings

The pull type release bearing mechanism was designed and developed by EXEDY. The mechanism and bearing are EXEDY patented technology:



### Advantages of Pull Type Bearings

- The direction of release is the same as the direction of disengagement, giving a positive pedal feel
- Less space is required in the bell housing
- There are less moving parts

### Theory behind Pull Type Bearings

Simple physics and the law of levers tell us that the greater the lever length, the less the effort required to move a mass. A traditional push type clutch utilises only about 70-75% of the available diaphragm finger length to act on a fulcrum point and cause the release bearing to 'push' the diaphragm spring, thereby removing the clamp load from the clutch.

In a pull type design the fulcrum point is relocated, by hinging the diaphragm under the lip of the cover and thereby lengthening the lever by up to 30%. The release bearing 'pulls' the diaphragm to remove the clamp load from the clutch. This means that for a given lever length the pedal effort will be 30% less than an equivalent push type design. Therefore in a pull type clutch, for the same pedal effort as a push type clutch, the clamp load of the clutch can be increased by 30% without driver comfort being affected. This is why pull type bearing technology is used in a variety of high performance and 4x4 applications where higher clamp loads are required.

**Note:** See 'Pull Type Bearing Removal' in the [EXEDY Standard Clutch](#) Technical Section for fitting and removal of Pull Type Bearings.

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