



HARD DRIVER[®]

The **LiMAR** Hard Driver[®] - High Frequency Impacting Sub is a device that is capable of generating high frequency, bi-directional impact.

The Hard Driver[®] is generally used where impact vibration in conjunction with an applied push or pull force will assist in the recovery of a stuck fish from within the well bore.

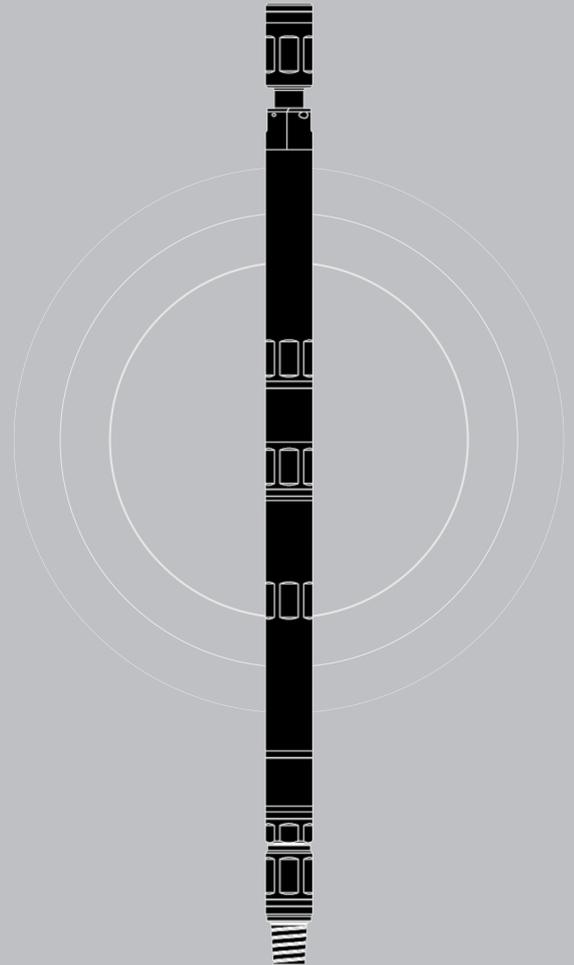
The direction of the generated force is selected by simply applying weight in the required direction of the impact.

TOOL APPLICATIONS:

- To provide high frequency, bi-directional impact in conjunction with the LiMAR Sling Shot® – Impact Enhancer Sub

DESIGN FEATURES & BENEFITS:

- Available in a range of sizes to suit industry standard Coiled Tubing BHA's
- Suitable for high temperature environments
- Compact design ideal for restricted height applications
- Simple, robust design ensuring ease of operation for the end user
- Selected components QPQ treated
- Hexagonal flats for safe make-up & break-out
- Connection options to suit customer requirements
- Option to configure to single direction only
- Ability to increase mass when configured in single direction mode
- Corrosion resistant materials



TECHNICAL DATA

Assembly Part No.	Actual OD	Make up Length
184-1687-XXX-RX	1.687"	40.00"
184-1750-XXX-RX	1.750"	40.00"
184-2250-XXX-RX	2.250"	46.84"
184-2875-XXX-RX	2.875"	52.56"

XXX - Last 3 digits of part number denotes connection type - Please refer to the connection code data sheet.
 For additional sizes or further information please contact sales@limaroiltools.com