

Merla HDTMP Kickover Tool

Slickline Downhole Tools

Merla HDTMP series positioning tools are used to install or retrieve 1" OD gas lift valves into Merla TMP and TMPD types of side pocket mandrels. The HDTMP was developed from the original TMP with a narrower trigger and a shorter length so that it can be used in some non-Merla side pocket mandrels.

For running a valve, the Merla HDTMP positioning tool can be used either with a Merla MR or MER running tool or alternatively with a Camco JK running tool. For pulling a valve, the HDTMP positioning tool can be used with either a Merla MP, a CAMCO® 1 1/4" JDC or an Otis® 1 1/4" SM Pulling tool.

Especially suited for use in deviated wells, the HDTMP positioning tool consists of a fishing neck with a threaded pin connection on the upper end, a main housing containing a locating key, trigger, latching and kick springs, a pivot arm assembly and a knuckle joint with box threaded adapter on the lower end for attachment to a running or pulling tool.

Tool operation is the same whether running or pulling a valve, except for the use of a running tool or pulling tool attached to the bottom of the positioning tool. To install a gas lift valve, the running tool is first lowered past the target mandrel, then the string is slowly moved back up, which causes the positioning tool to position the locating key in the mandrel's orientating sleeve.

Further upward movement causes the positioning tool to rotate until the key enters the orientating slot in the sleeve. A noticeable increase in tension will occur when the tool reaches the end of the slot. A further gradual increase in tension will then cause the tool to "kick over" and latch in place directly above the mandrel's pocket. The tool string is then lowered slowly until the line tension drops off, indicating that the valve has entered the pocket. The tool string is now jarred down to seat the valve. An overpull is taken to confirm valve is set. Once confirmed upward jarring will shear running tool.

Once the tool has sheared off the valve, the tool trigger will come back into the orientating slot and will shear a pin holding the guide key in place. Once this is done, the tool will no longer align in each mandrel as it is pulled to surface. As the tool is pulled through the orientating sleeve, the "kicked over" arm will straighten and lock in the straight position. This feature eliminates unnecessary wear on the tool caused by rubbing on the tubing wall when pulling out of the well.

Hunting HDTMP Kickover Tools are available with various connections to suit customer requirements

