



**Boyles Bros**  
Diamantina

**INTRODUCE**

**NEW  
HEAD ASSEMBLY  
REAL  
QUICK DESCENT**

DOUBLE FASTER THAN OTHERS





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## **PRODUCTIVITY ADVANTAGES**

- ✓ **2X FASTER THAN OTHER HEAD ASSEMBLIES AT DESCENT.**
- ✓ **SAVE UP TO 50% OF MUD USED WHILE DESCENDING WHEN THERE IS NO RETURN OF FLUID.**
- ✓ **IMPROVE PRODUCTIVITY BETWEEN 15%-20%.**
- ✓ **EARN TWO OR MORE EXTRA DRILLING CYLES A DAY.**

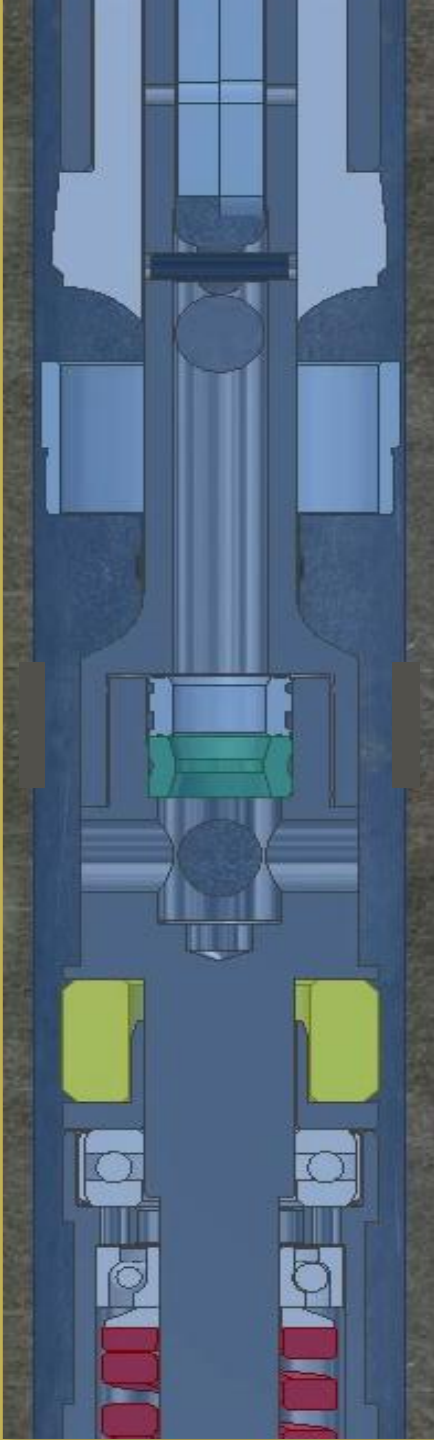




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## RELIABILITY ADVANTAGES

- ✓ **STRONGER LANDING INDICATOR, IT ALLOWS TO SEE A GOOD INDICATION EVEN WHEN THE HEAD ASSEMBLY WORKS AT GREATER DEPTHS.**





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## **COMPATIBILITY ADVANTAGES**

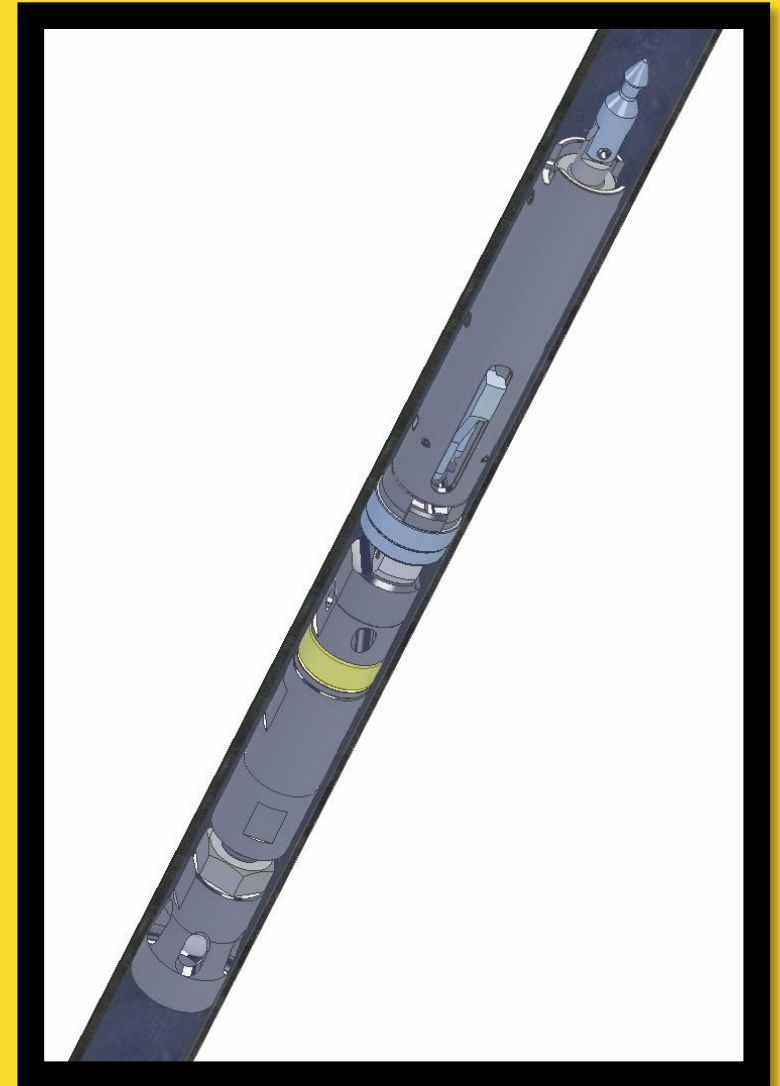
- ✓ **COMPATIBLE WITH “LINK LATCH” OUTER TUBE ASSEMBLY.**
- ✓ **NO ESPECIAL INNER TUBE, DRILL RODS OR LOCKING COUPLING NEEDED.**



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## **WHY IS THE FASTEST?**

**THE NEW HEAD ASSEMBLY HAS LESS DRAG THAN OTHERS. ITS RETRACTABLE PATENTED SYSTEM MAKE IT POSSIBLE.**



# TESTS IN PERU CERRO VERDE MINE



## NEW HEAD ASSEMBLY MK-5 NO SIZE

DRILLING CONDITIONS	TIME DURING DESCENT	
	MK-5 NO	ESTÁNDAR NO
ANGLE: -75° DEEP: 1200 m CONDITIONS: FLUID RETURN	11'50"	19'
ANGLE: -75° DEEP: 1300 m CONDITIONS: FLUID RETURN	12'30"	19'30"
ANGLE: -75° DEEP: 1400 m CONDITIONS: FLUID RETURN	13'15"	20'50"
ANGLE: -75° DEEP: 1500 m CONDITIONS: FLUID RETURN	13'50"	23'15"
ANGLE: -75° DEEP: 1600 m CONDITIONS: FLUID RETURN	15'45"	25'
ANGLE: -75° DEEP: 1700 m CONDITIONS: FLUID RETURN	17'	27'15"
ANGLE: -75° DEEP: 1800 m CONDITIONS: FLUID RETURN	18'15"	28'30"

## NEW HEAD ASSEMBLY MK-5 HO SIZE

DRILLING CONDITIONS	TIME DURING DESCENT	
	MK-5 HO	ESTÁNDAR HO
ANGLE: -75° DEEP: 700 m CONDITIONS: FLUID RETURN	8'15"	16'50"
ANGLE: -75° DEEP: 800 m CONDITIONS: FLUID RETURN	10'45"	21'30"
ANGLE: -75° DEEP: 900 m CONDITIONS: FLUID RETURN	12'	24'15"
ANGLE: -75° DEEP: 1000 m CONDITIONS: FLUID RETURN	13'30"	27'15"
ANGLE: -75° DEEP: 1100 m CONDITIONS: FLUID RETURN	14'30"	28'30"
ANGLE: -75° DEEP: 1200 m CONDITIONS: FLUID RETURN	15'15"	29'45"

# SCOPE OF TESTS


PARAMETERS	MK-5 HO	MK-5 NO
DRILLING ANGLE	50° - 90°	55° - 90°
MAX. DEEP TESTED	TO 1200 METERS	TO 1800 METERS
HOLE CONDICIENT WITH RETURN OF FLOW	50% OF TIME SAVING DURING DESCENT	40% OF TIME SAVING DURING DESCENT
HOLE CONDICIENT WITHOUT RETURN BUT WITH LOSS FLOW CLOSE TO SURFACE		
HOLE CONDICIENT WITHOUT RETURN AND WITH LOSS FLOW CLOSE TO THE BIT	350 METERS (WITH BLUE SPRING)*	NO TESTED

# NEW HEAD ASSEMBLY VS OTHERS

## AT A HOLE

DEPTH: 700 METERS  
 ANGLE: -60°  
 DRILLING SPEED: 5 INCH/MIN  
 INEER TUBE LENGTH: 10'  
 EFFECTIVE TIME: 16HOURS

*IN THE SAME CONDITIONS, OUR NEW HEAD ASSEMBLY WILL HELP TO IMPROVE THE PRODUCTIVITY EACH DAY REGARDING OTHERS HEAD ASSEMBLY.*

	NEW HEAD ASSEMBLY BOYLES BROS	OTHERS
DRILLING TIME (MIN)	24	24
DESCENT TIME (MIN)	<u>6</u>	12
RECOVERY TIME (MIN)	4	4
DRILLING CYCLE (MIN)	34	40
DRILLING CYCLES/DAY	28	24
PRODUCTIVITY GAIN	<b>18%</b> 	-



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**AVAILABLE**



- H W/L SIZE
- N W/L SIZE
- N2 W/L SIZE