



**ALH SYSTEMS LTD**

**ALH SYSTEM 1  
SERVICE VALVE AND  
DRILLING MACHINE  
OPERATING MANUAL**

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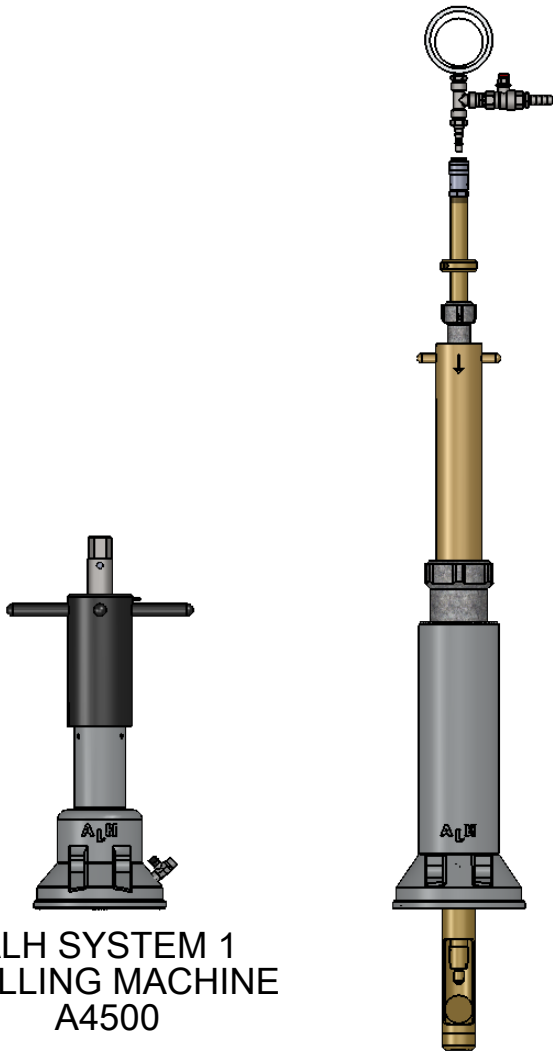


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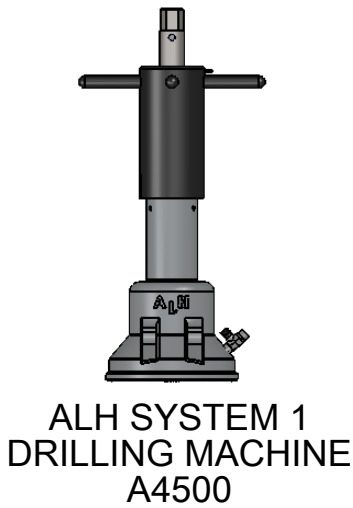
TEL: +44 (0)1373 858234

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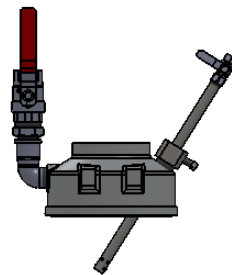
# ALH SYSTEM 1 PRODUCT RANGE



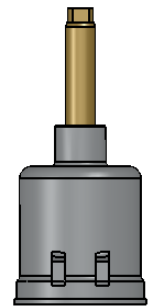
ALH SYSTEM 1  
BAGTUBE  
115-9000



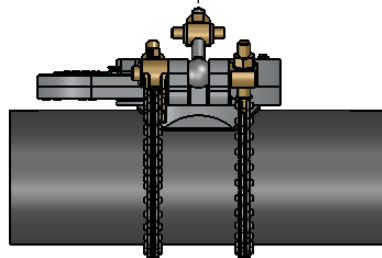
ALH SYSTEM 1  
DRILLING MACHINE  
A4500



ALH SYSTEM 1  
BYPASS  
115-9001



ALH SYSTEM 1  
PLUG INSERTION  
115-9002



ALH SYSTEM 1 SERVICE VALVE  
A0020



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# OPERATING AND SERVICE NOTES

THE ALH SYSTEM 1 SERVICE VALVE AND THE ALH SYSTEM 1 DRILL SET ARE DESIGNED WITH EASE OF USE AND LOW MAINTENANCE A PRIORITY.

NO PLANNED MAINTENANCE PROGRAM IS REQUIRED TO KEEP THE KIT IN FULL WORKING ORDER.

A VISUAL INSPECTION INCLUDING CONDITION OF SEALS SHOULD BE COMPLETED BEFORE EACH OPERATION. AFTER EACH USE THE KIT SHOULD BE CLEANED TO REMOVE ANY FOREIGN MATERIAL WHICH COULD IMPAIR FUTURE USE OF THE KIT.

THIS DOCUMENT TO BE READ IN CONJUNCTION WITH CURRENT INDUSTRY CODES OF PRACTICE

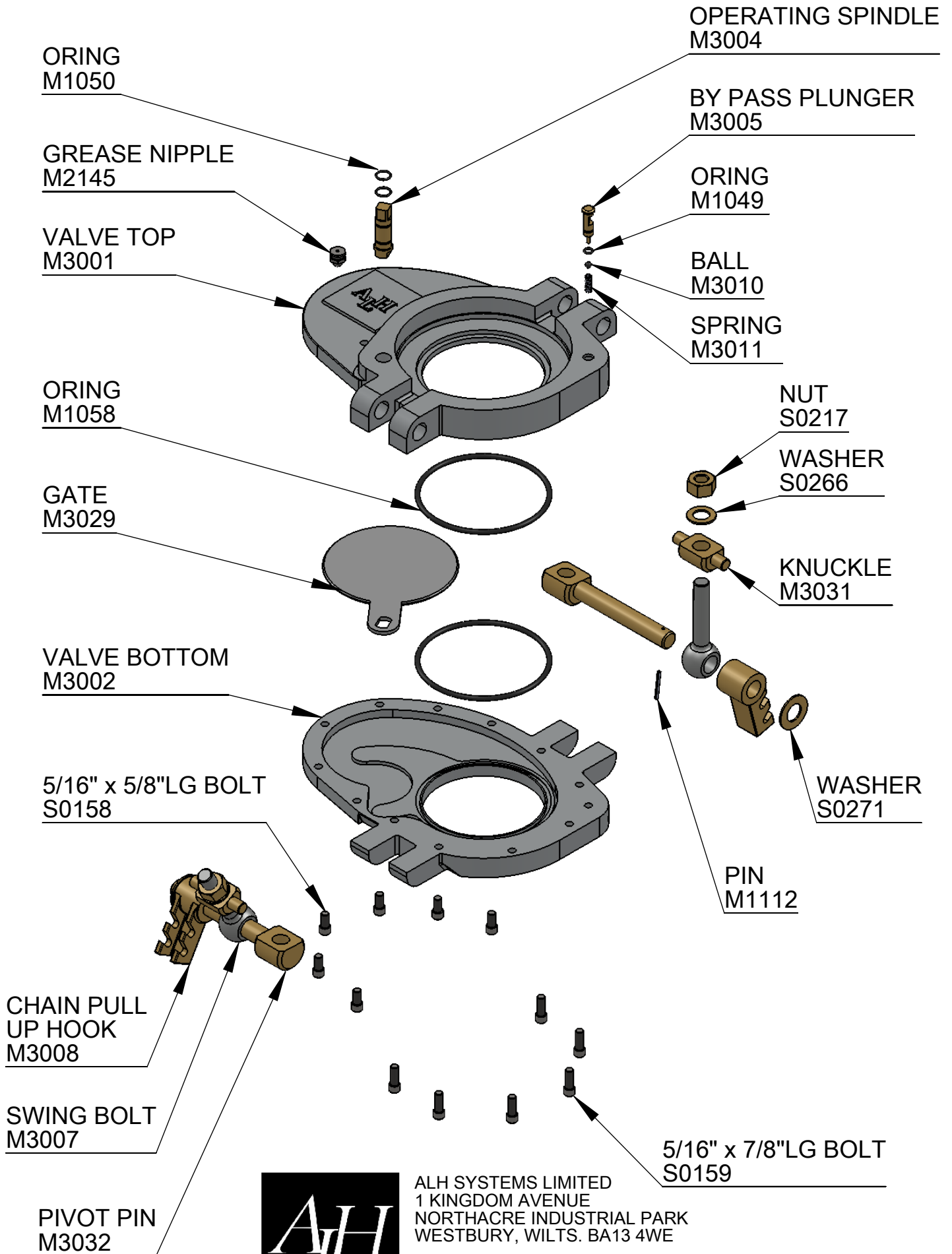


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# ALH SYSTEM 1 SERVICE VALVE A0020

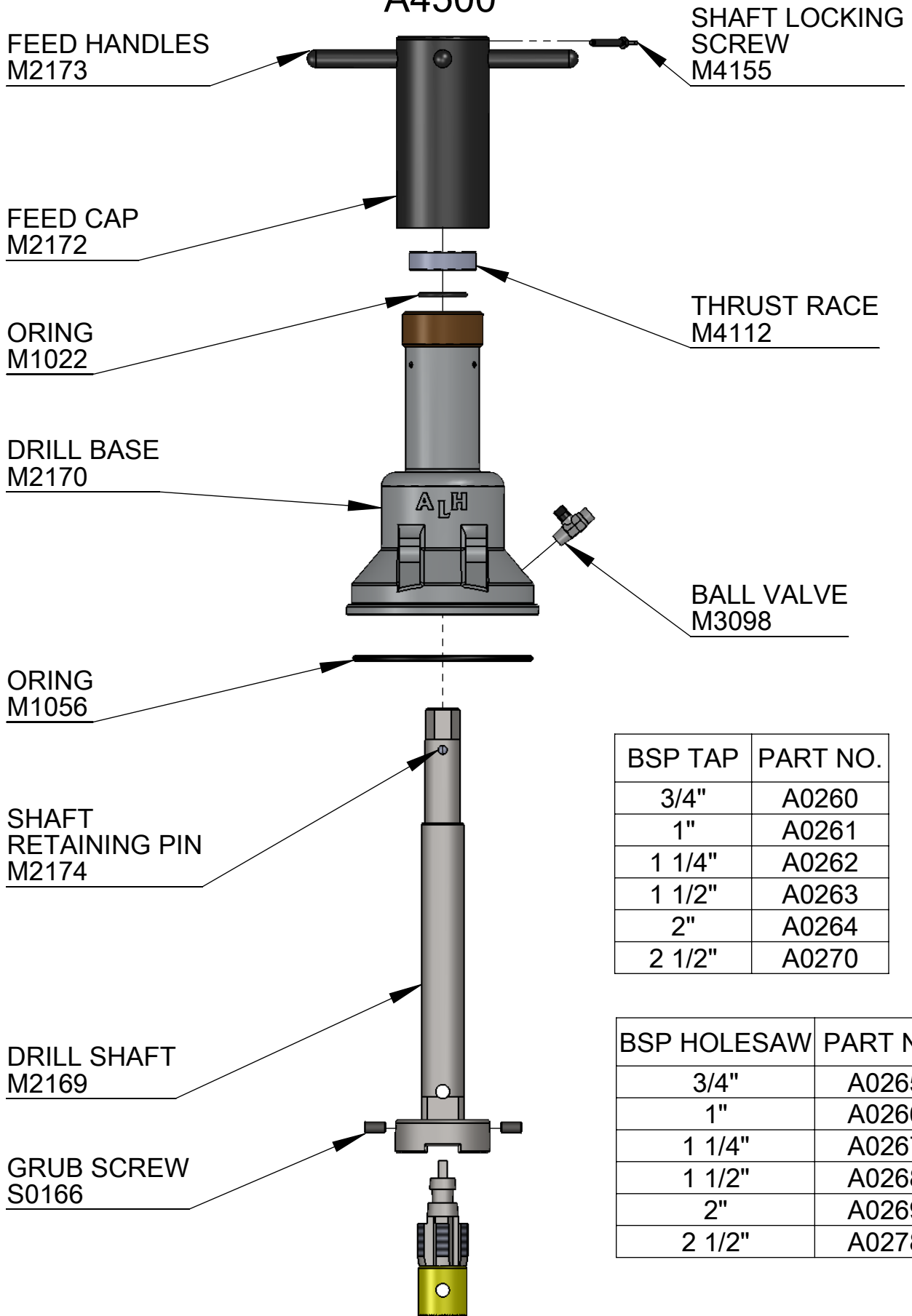


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# ALH SYSTEM 1 DRILLING MACHINE A4500



BSP TAP	PART NO.
3/4"	A0260
1"	A0261
1 1/4"	A0262
1 1/2"	A0263
2"	A0264
2 1/2"	A0270

BSP HOLESAW	PART NO.
3/4"	A0265
1"	A0266
1 1/4"	A0267
1 1/2"	A0268
2"	A0269
2 1/2"	A0278

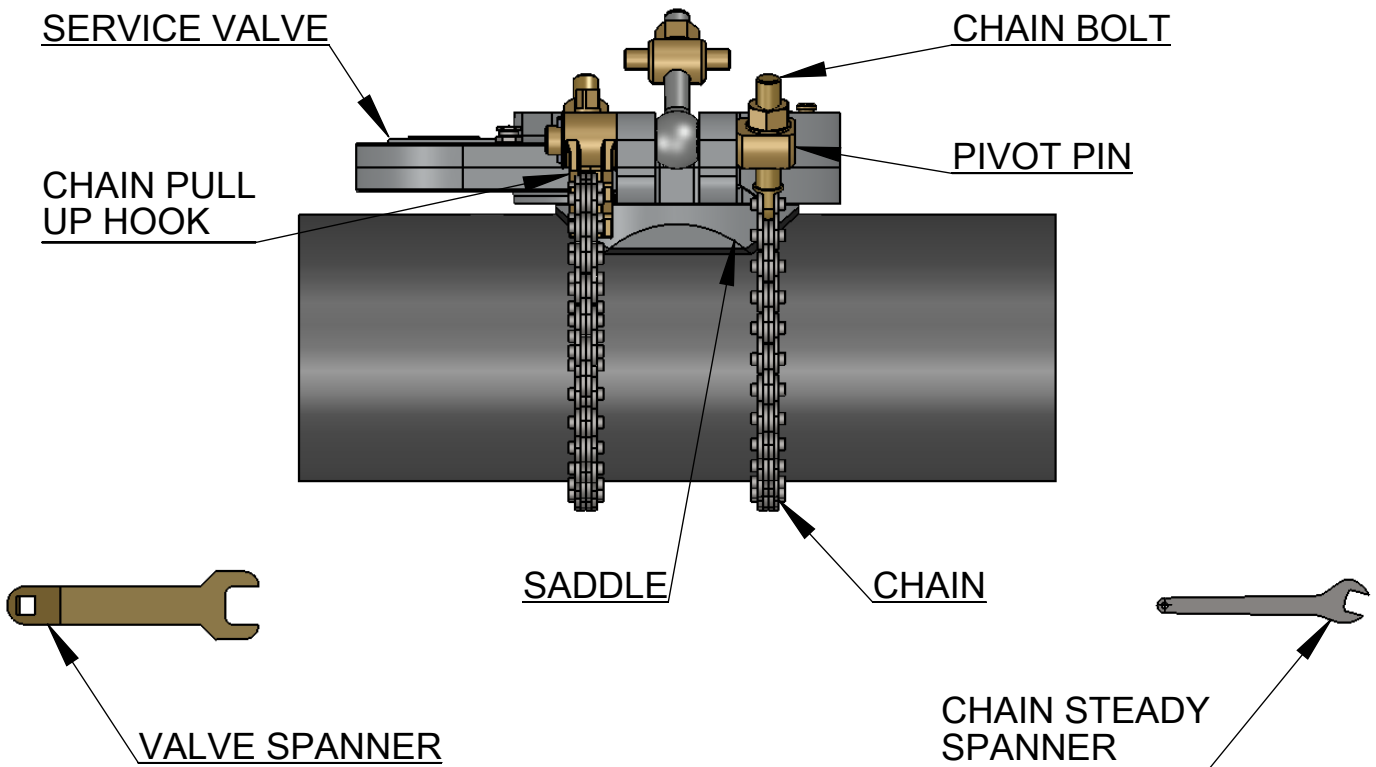


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# STEP 1



1. CLEAN TOP OF PIPE
2. PLACE APPROPRIATE SIZE SADDLE ON PIPE
3. FIT SERVICE VALVE ONTO SADDLE
4. PUSH CHAIN BOLTS THROUGH PIVOT PINS AND SECURE WITH WASHER AND CHAIN NUT
5. PASS CHAINS UNDER PIPE AND FIT INTO CHAIN PULL UP HOOK
6. SUPPORT CHAIN WITH CHAIN STEADY SPANNER AND TIGHTEN CHAIN NUT WITH VALVE SPANNER\*

\* IT IS ESSENTIAL THE ALH VALVE SPANNER IS USED IN ORDER TO REDUCE THE RISK OF OVER TIGHTENING THE CHAIN BOLTS

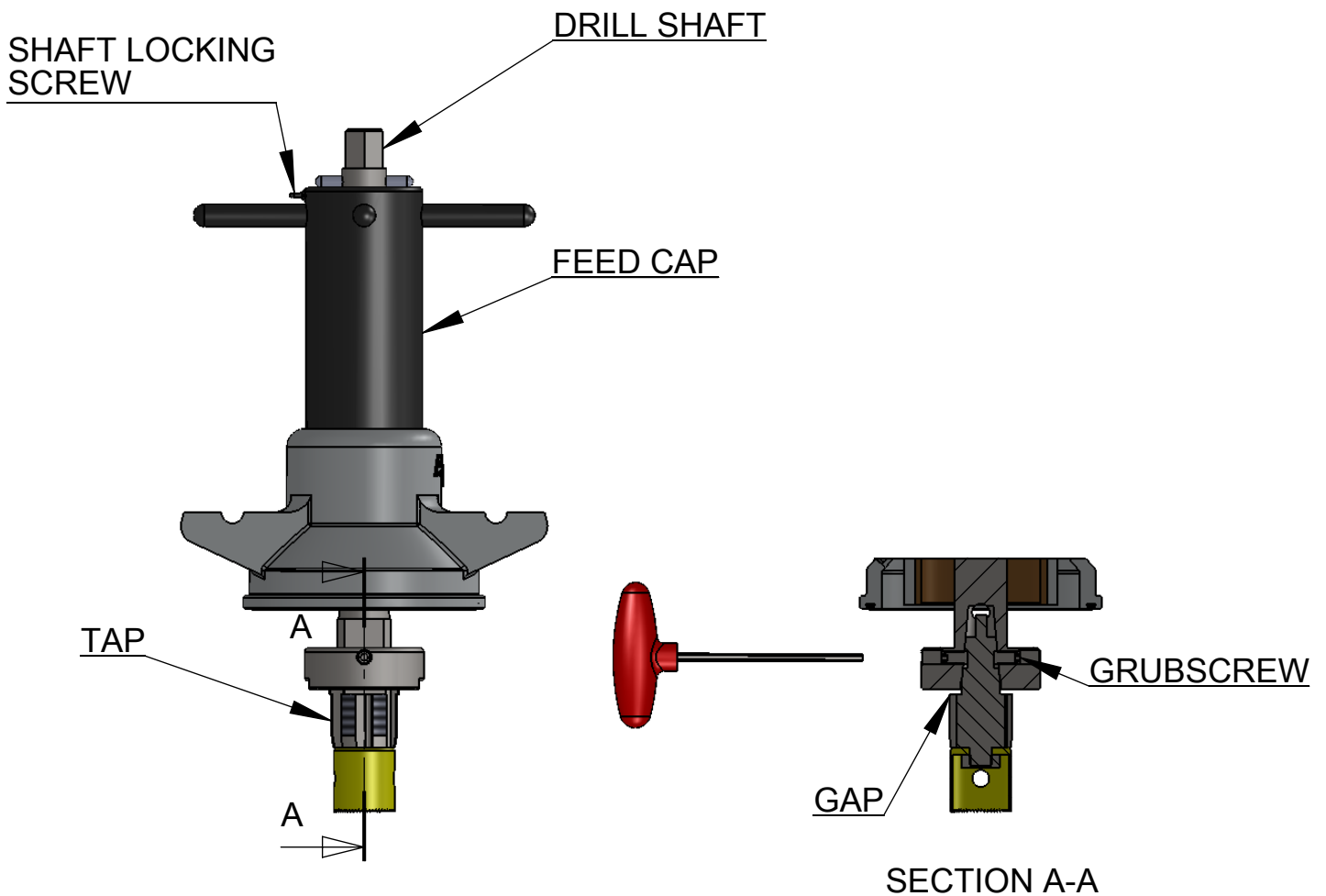


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## STEP 2



1. WIND FEED CAP DOWN TO STOP
2. RELEASE SHAFT LOCKING SCREW AND ALLOW DRILL SHAFT TO DROP
3. REMOVE GRUBSCREWS
4. FIT CORRECT TAP AND TIGHTEN GRUBSCREWS

TO RELEASE TAP INSERT  
SCREWDRIVER INTO GAP SHOWN



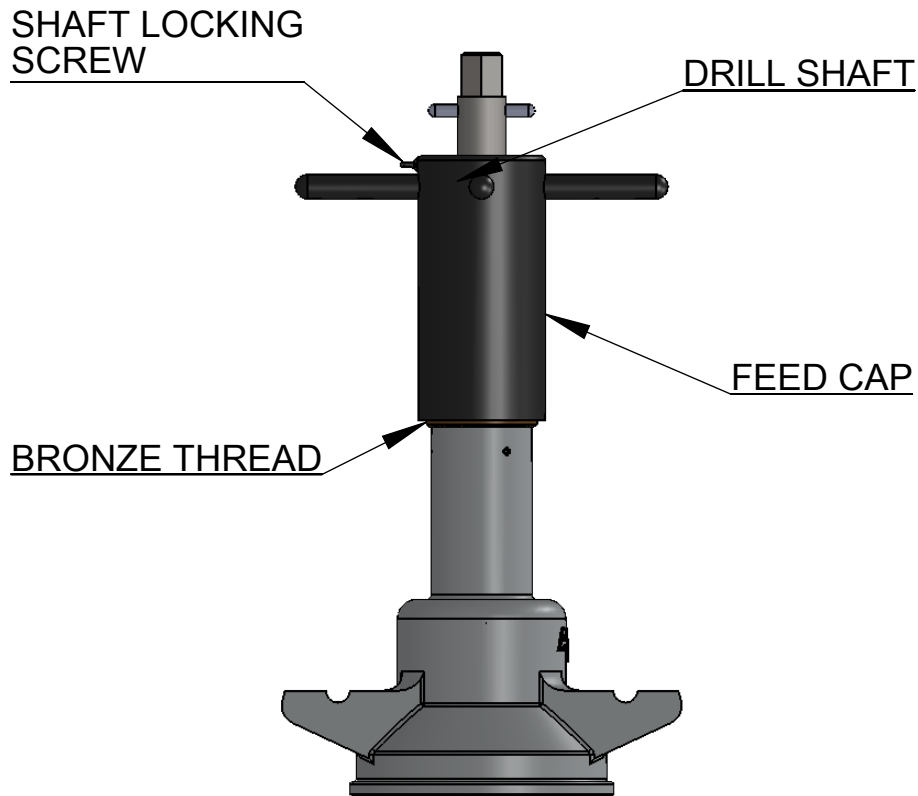
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## STEP 3



1. WIND FEED CAP UP UNTIL BRONZE THREAD IS VISIBLE
2. SLOWLY ROTATE DRILL SHAFT UNTIL IT CAN BE RAISED UP. THIS ALIGNS THE SQUARE ON THE DRILL SHAFT WITH THE SQUARE IN THE DRILL BASE WHICH PREVENTS THE GATE BEING DRILLED
3. TIGHTEN SHAFT LOCKING SCREW

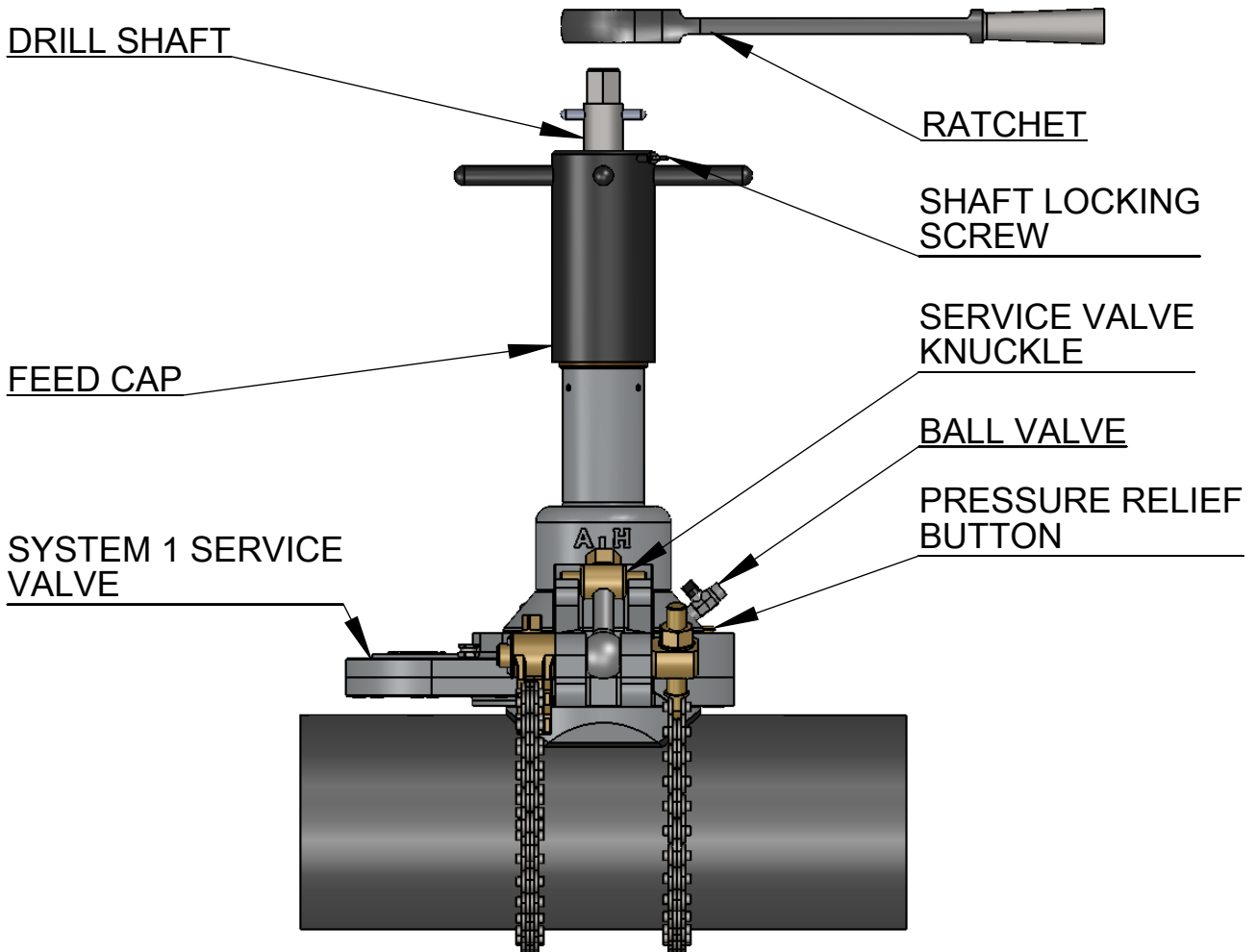


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## STEP 4



1. MOUNT DRILLING MACHINE ONTO SYSTEM 1 SERVICE VALVE
2. SECURE USING SERVICE VALVE KNUCKLE AND TIGHTEN NUTS
3. PRESSURE TEST VALVE USING DRILLING MACHINE BALL VALVE
4. PRESS PRESSURE RELIEF BUTTON TO EQUALISE PRESSURE
5. OPEN SYSTEM 1 VALVE
6. LOOSEN SHAFT LOCKING SCREW
7. WIND DOWN FEED CAP UNTIL THE CUTTER REACHES THE PIPE
8. ROTATE THE DRILL SHAFT USING RATCHET OR NUT RUNNER
9. WIND DOWN THE FEED CAP BY APPLYING GENTLE PRESSURE



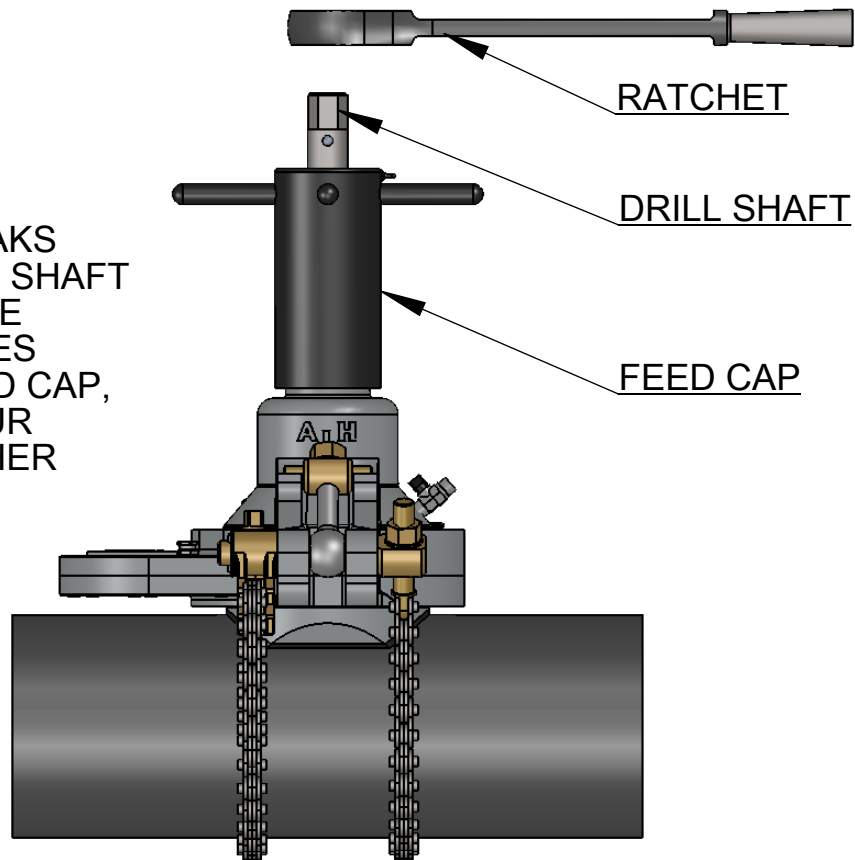
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## STEP 5

WHEN CUTTER BREAKS THROUGH PIPE, THE SHAFT MAY DROP UNTIL THE RETAINING PIN MAKES CONTACT WITH FEED CAP, THIS MAY NOT OCCUR ON PIPES WITH HIGHER GAS PRESSURE



1. WIND DOWN FEED CAP UNTIL RESISTANCE IS FELT
2. ROTATE DRILL SHAFT USING RATCHET TO ENGAGE TAP
3. CONTINUE TO ROTATE DRILL SHAFT TO TAP HOLE
4. IT IS ONLY NECESSARY TO WIND FEED CAP FURTHER TO MAINTAIN GAP BETWEEN RETAINING PIN AND FEED CAP
5. ONCE TAP IS ROTATING FREELY, TAPPING IS COMPLETE
6. REVERSE THE DRILL SHAFT TO UNWIND THE TAP, IT MAY BE NECESSARY TO ALSO UNWIND THE FEED CAP
7. REFER BACK TO STEP 3 TO RAISE CUTTER
8. CLOSE SYSTEM 1 VALVE
9. VENT AND REMOVE DRILLING MACHINE



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