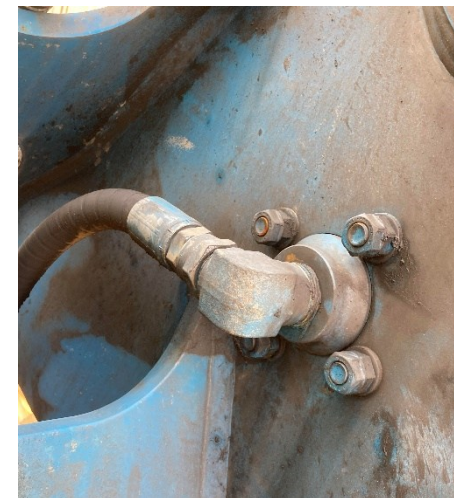


HARDLOCK[®]
Solution

**Hydraulic Breaker
Hammer Application**

HARDLOCK Nut use on Hydraulic Breaker Hammer



Fixing pressure oil hose
M16x2.0 C8 MP



Fixing top cover for silent damper
(Furukawa Rock Drill)

Fixing side bracket and cylinder block (TEISAKU)

For clamping the side brackets, knuckle thread fasteners are employed to withstand very large forces that may cause bolt breakage.

While the Concave nut of HLN is tightened to achieve the upper limit of the recommended tightening torque, torquing is stopped when the nuts come into one-side contact.

The eccentricity of the protrusion is specially designed for knuckle thread, Rd HLN seems to be easy to develop one side contact.



Safety is power!

HARDLOCK®

Tightening torque of HARDLOCK Nuts



TOP-205J



TOP-210B



TOP-300J



TOP-300B



TOP-400B



TOP-800B



TOP-1000J

| TEISAKU Products | | TOP210B | TOP400B | TOP800B |
|---------------------------------------|-------------|------------------------------|------------------------------|------------------------------|
| Working pressure [MPa] | | 14 ~ 18 | 14 ~ 18 | 15 ~ 18 |
| Required oil flow for Breaker [L/min] | | 120 ~ 160 | 280 ~ 350 | 280 ~ 380 |
| Frequency [bpm] | | 310 ~ 430 | 320 ~ 390 | 260 ~ 360 |
| Operating weight [kg] | | 1,680 | 3,750 | 5,600 |
| Overall length [mm] | | 2,330 | 3,089 | 4,420 |
| Working tool Dia. [mm] | | 135 | 169 | 189 |
| Suitable carrier machine [Ton] | | 20 ~ 23 | 40 ~ 50 | 60 ~ 80 |
| HARDLOCK Nut | | | | |
| Size | | Rd42x1/8 (TPI 8) | Rd52x1/6 (TPI 6) | Rd56x1/8 (TPI 8) |
| Material/Surface treatment | | S45C/ Manganese Phosphate | S45C/ Manganese Phosphate | S45C/ Manganese Phosphate |
| Tightening torque [Nm] | Convex Nut | 3,700 Nm | 7,300 Nm | 7,600 Nm |
| | Concave Nut | 690 Nm | 830 Nm | 880 Nm |

The tightening torque of the Convex nut is a result of calculation using torque coefficient of 0.18 to achieve clamp force of 70% of bolt yield point (Class 8.8). TEISAKU are using 12.9 bolt and did not disclose exact tightening torque, but they are not too far off.



Safety is power!

