

扭力倍增器使用指南

转换比率	最大输入扭力	最大输出扭力	输入端驱动头	输出端驱动头	L (MM)	ø (MM)	H (MM)	产品重量 (KG)
1:20	225 N.m 166 Lbf.ft	4500 N.m 3321 Lbf.ft	1/2"	1-1/2"	312	120	204	8.30

使用者在使用过程中必须非常小心，因为该产品可以输出非常高的扭力值。

- 请始终与扭力扳手配合使用。
- 此款倍增器可以顺时针和逆时针工作。
- 请使用正确规格的扭力扳手，倍增器和套筒。在使用过程中，请确认倍增器始终处于轴心的位置。请尽量减小倍增器和螺母之间的距离。
- 反作用力臂工作时必须倚靠在固定物体上，不能有丝毫的移动。因为它会向扳手所施加的力的反方向使力，把反作用力卸载到所倚靠的物体上。
- 该倍增器有安全防护装置。为了保护内部的机械结构，如果过载超过20%，输入端的安全销将会被破坏。
- 请不要使用冲击类电动或气动工具来配合该倍增器使用。
- 在倍增器输出高扭力使螺母转动的时候，使用者必须集中精力，注意安全。为得到所需要的扭力，可以用扭力扳手设定该倍增器的最大输入扭力。在得到倍增器的最大输出扭力值时，使用者应该松开扭力扳手以避免倍增器方形驱动的损坏。
- 此款倍增器配有防滑棘轮，该棘轮可以防止倍增器在使用过程中反向旋转。该防滑棘轮适用于顺时针旋转和逆时针旋转使用。
- 在拆卸螺栓时，也可以用扭力扳手设定倍增器输入扭力的最大值。在得到倍增器输出功率的最大值时，应该松开扭力扳手以避免倍增器方形驱动的损坏。

使用方法：

1. 请选取合适的套筒和扭力扳手配合倍增器一起使用。在使用前请确保反作用力臂倚靠的物体不会发生移动，反作用力臂以正确的方式固定。
2. 通过旋转换向拨片来确定防滑棘轮的旋转方向。根据设定的方向尝试旋转齿轮，确认齿轮工作正常。如果齿轮工作异常，请停止使用倍增器。
3. 使用过程中，当得到所需的扭力值并且扭力扳手还在施力的情况下，请改变防滑棘轮的旋转方向。
4. 在使用扭力扳手的时候请缓慢的加力，以降低倍增器所积聚的能量。

安全销的更换：

1. 移除输入端驱动的O形圈。
2. 移除已经破损的安全销。
3. 将新的安全销插入孔中。请注意，安全销必须穿过内部轴杆插入孔中。
4. 将O形圈放置回原位。

警示：

- 请避免将倍增器与水接触。
- 使用完后，请将倍增器放回原来的工具箱中。
- 使用时，请注意倍增器本身的重量。
- 请避免意外跌落或敲击此款倍增器。

MULTIPLIER INSTRUCTIONS

Ratio	Max Input	Max Output	□	■	L (MM)	ø (MM)	H (MM)	KG
1:20	225 N.m 166 Lbf.ft	4500 N.m 3321 Lbf.ft	1/2"	1-1/2"	312	120	204	8.30

Using a multiplier it's possible to reach high tightening / releasing torques with a reduced effort.

THE OPERATOR MUST PAY THE GREATEST ATTENTION BECAUSE THE INVOLVED TOOLS ARE SUBMITTED TO HIGH TORQUES AND FORCES.

- Use always with a torque wrench.
- Multiplier can work both clockwise and anticlockwise.
- Verify the correct insert of wrench, multiplier and sockets and also during the operation check that the tools work always in axis between them minimizing as much as possible the distance from the nut.
- The reaction bar must work against well dimensioned objects, without possibility of movement, because it will push in the opposite sense of the wrench one, unloading the torque against the supporting object.
- The multiplier has a security protection: on the input square drive there is a calibrated pin. If submitted to the 20% overload, it breaks to protect the internal mechanisms.
- The multiplier has an anti wind-up ratchet that allows the rotation in a direction and prevents it in the opposite one.
- The anti wind-up ratchet is suitable for clockwise and anticlockwise operations.
- Don't use with impact power tools.
- To release bolts it's advised to set a torque wrench to the maximum input capacity of the multiplier and torque. If the operator reaches the multiplier maximum output capacity the torque wrench will release avoiding the breaking of the calibrated pin.

UTILIZE

1. Starting from nut insert: socket, multiplier and torque wrench putting the reaction bar against well dimensioned objects, without possibility of movement. Pay attention that the reaction bar is fixed in the correct way.
2. Ensure the required direction of the anti wind-up ratchet by rotating the pins on the plate. Test direction of rotation and ensure that the ratchet operates freely. Do not use tool if ratchet does not operate freely.
3. When the set torque is reached, with the wrench still loaded, change the anti wind-up ratchet direction.
4. Allow the torque wrench to rotate slowly to run down the multiplier accumulated energy.

CALIBRATED PIN REPLACEMENT

1. Remove the o-ring from the input square drive.
2. Remove the broken parts from the hole.
3. Insert the new pin into the hole, paying attention to insert it also through the hole of the inside shaft.
4. Replace the o-ring in the input drive slot.

WARNINGS

- Avoid contact with water
- After using put back multiplier in its proper case.
- Handling with attention (weighty tool).
- Avoid accidental knocks and falls.