



Operating instruction for Yale Hydraulic cylinder

Series: **YEL (with safety lock nut)**
YEGA (with plain piston rod)



08.09

1. Application (YEL):

Hydraulic cylinders with "safety lock nut" are used when lifted loads have to remain in lifted position for a longer period.

After having turned down the safety lock nut the load is supported safely on the housing like on a mechanical support. Oil pressure can be set to zero.

2. Design (YEL):

The piston of this cylinder design is equipped with a thread so that the safety lock nut can be turned up and down. Due to this special design this cylinder model can not be equipped with a stop ring as a piston guiding and stroke limitation.

3. Advancing of the piston (YEL + YEGA):

It should be monitored that the maximum stroke should not be over-travelled.

If the max. stroke is over-travelled the safety overflow hole steps into action.

As soon as the strike is fully extended, the piston should not be advanced further anymore otherwise the seal can be damaged.

4. Safety overflow hole (YEL + YEGA):

YEL und YEGA cylinder models are equipped with an overflow hole. Hydraulic oil is discharged into atmosphere if the piston is advanced passing the max. stroke.

To prevent damage of the seals, this should definitely be avoided!

5. Retract of the piston (YEL + YEGA):

To retract the piston (YEL) from the supported position the cylinder has to be "pumped off" to release the safety lock nut, then the safety lock nut has to be turned upwards and the directional valve has to be switched in "retract" position.

Pistons are pushed back by external load.

Special cylinder YELS:

They are equipped with a spring to have a "spring assisted return".

Special cylinder YELR:

They are double acting and retract with hydraulic force.

6. Swivel saddles (YEL + YEGA):

Due to the special design the cylinders can not be equipped with a "stop ring" and upper piston guiding. Therefore these cylinders should not be subjected to excentric loads.

Cylinders should be used with swivel saddles to eliminate non-parallel arrangement.

Example: AYL-100 for 100-ton-Cylinder.

These saddles can tilt up to 5°.

Surface inside swivel saddles should be greased regularly!

7. Caution (YEL + YEGA):

- Recommended position is upright position.
- Never use cylinders under excentric loads!
- Avoid "spot loads" on the piston or saddle.
- **Contamination of cylinder and specially piston has to be avoided!**
- the use of a pressure gauge is strongly recommended
- Keep cylinder in dry conditions, if necessary store the cylinder with extended piston to prevent corrosion to the inner housing.

8. Working safety:

To help prevent personal injury do not allow personell to go under or work on a load before it is properly cribbed or blocked. All personell must be clear of the load before lowering.

The operator is responsible at all times for safety precautions.

9. Lifting eye:

Cylinders are equipped with lifting eyes for transport. Check the lifting eyes for a proper fit. Especially when transporting the cylinder by slings and cranes.