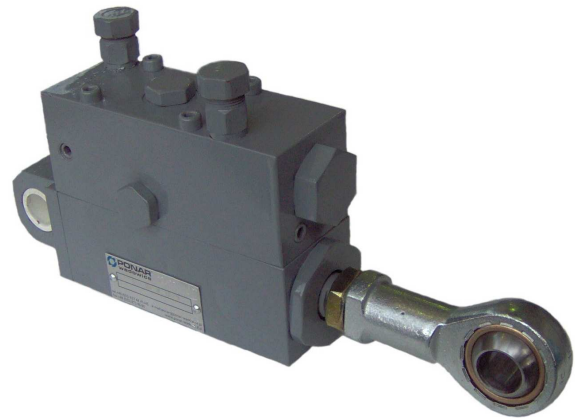


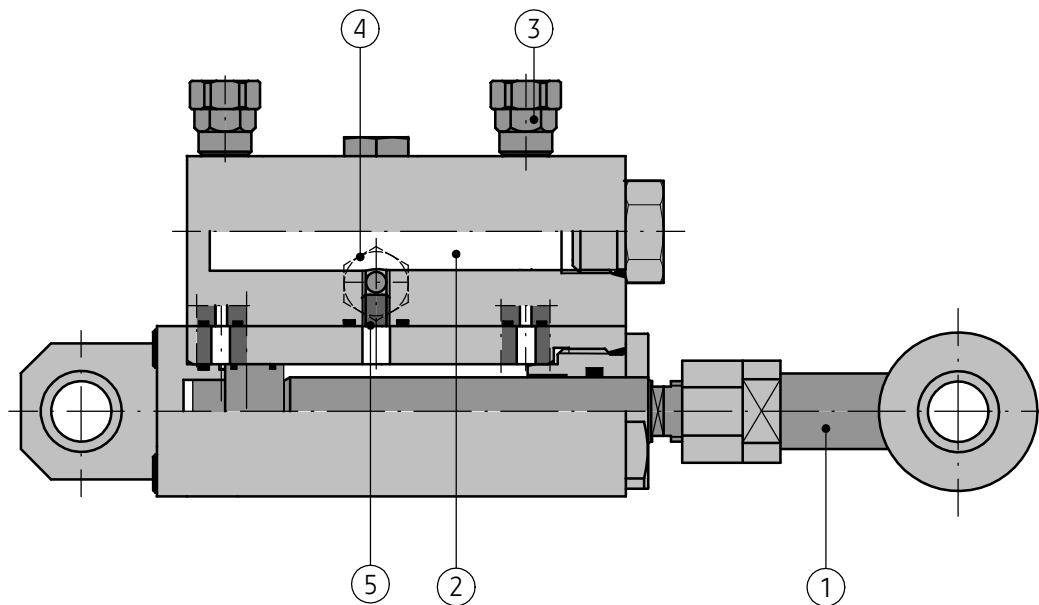
### APPLICATION

Hydraulic damper type **THZ 25/18-70/13** is used to limit speed of moving machinery elements e.g. tram switches, railroad switches etc.



### DESCRIPTION OF OPERATION

THZ 25/18-70/13



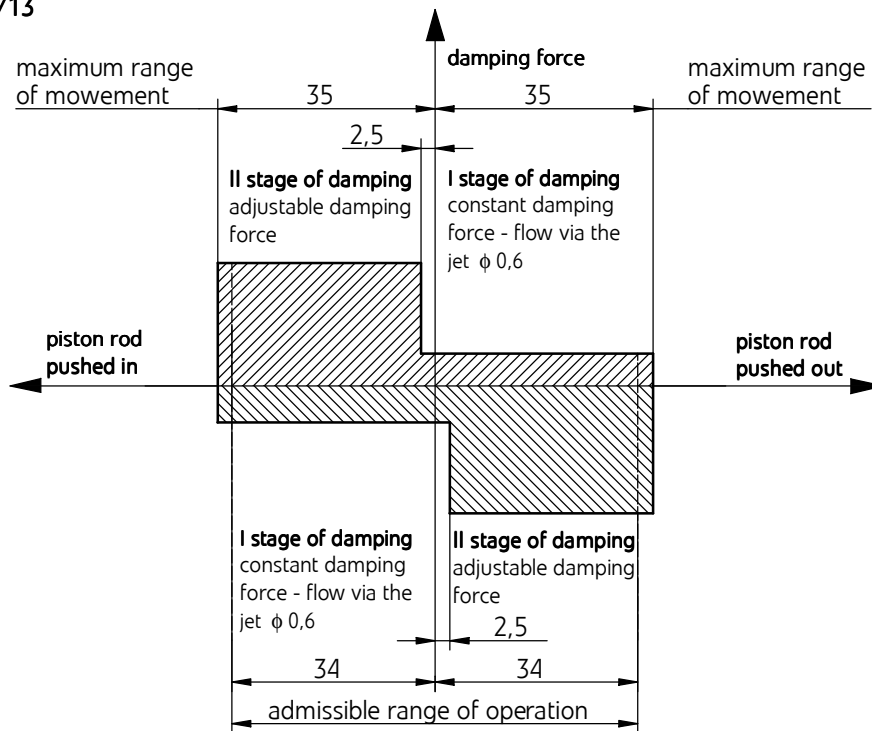
The force of moving element of machinery e.g. railroad switch or tram switch causes that the piston rod (1) moves. Working cycle of hydraulic damper consists of two stages of damping of movement velocity. Damping is caused while pushing in or pushing out piston rod (1). In the first half of piston rod stroke (1) the fluid flows from the cylinder (1) to the tank (2) via the jet (5). The force of damping of velocity of piston rod movement (1) is constant at this stage. It is forced by fluid flowing through the jet (5)

and then it is the first stage of damping. In the second half of stroke of piston rod (1) the force of damping of piston rod is adjustable by means of the throttle valves (3) and it is the second stage of damping then. The oil is sucked into the cylinder through throttle valve (4). Working cycle of hydraulic damper type **THZ 25...** in graph is presented in cyclogram on page 2.

## TECHNICAL DATA

Hydraulic fluid	syntetic oil MOBIL ATF SHC or equivalent
Oil cleanliness class	8 wg NAS 1638
Working temperature	-30 do +50°C
Tank capacity	350 cm <sup>3</sup>
Stroke	70 mm
Piston rod coating	chroming

### Cyclogram of hydraulic damper operation type THZ25/18-70/13

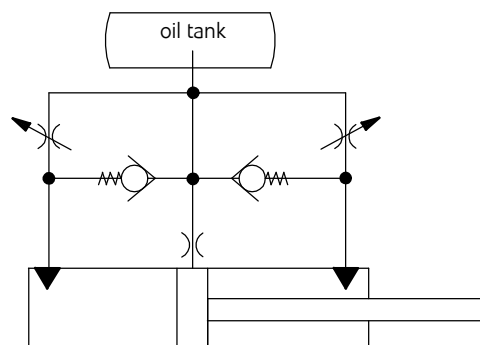


## START-UP AND OPERATION INSTRUCTIONS

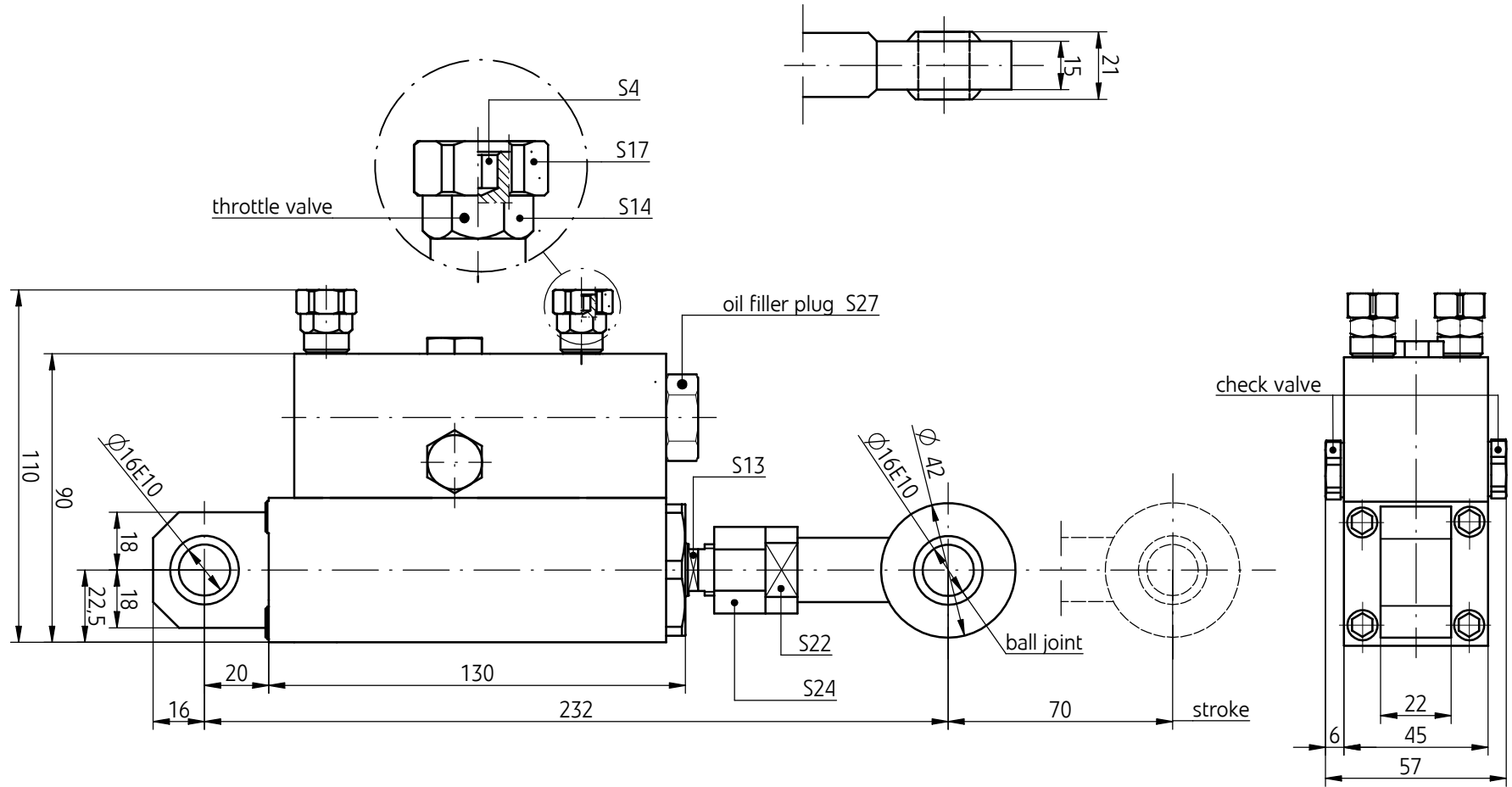
1. Damper tank must be filled with the oil via oil drain plug, whereas the damper must be in vertical position. The upper oil level should be between **18 - 22 mm** below the head surface of the tank while hydraulic damper is vertically positioned, piston rod is completely pushed in and cylinder chambers are extremely sucked.
2. The oil must be changed at least once in 2 years.
3. **Operation position – horizontal, oil tank faced up.**

## SCHEMES

### Hydraulic scheme for damper type THZ25/18 -70/13



### OVERALL AND CONNECTION DIMENSIONS



## HOW TO ORDER

Hydraulic damper should be ordered according to complete type designation.  
Coding example: THZ 25/18 - 70/13

PONAR Wadowice S.A.  
ul. Wojska Polskiego 29  
34-100 Wadowice  
tel. +48 33 488 29 00  
fax. +48 33 488 21 03  
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