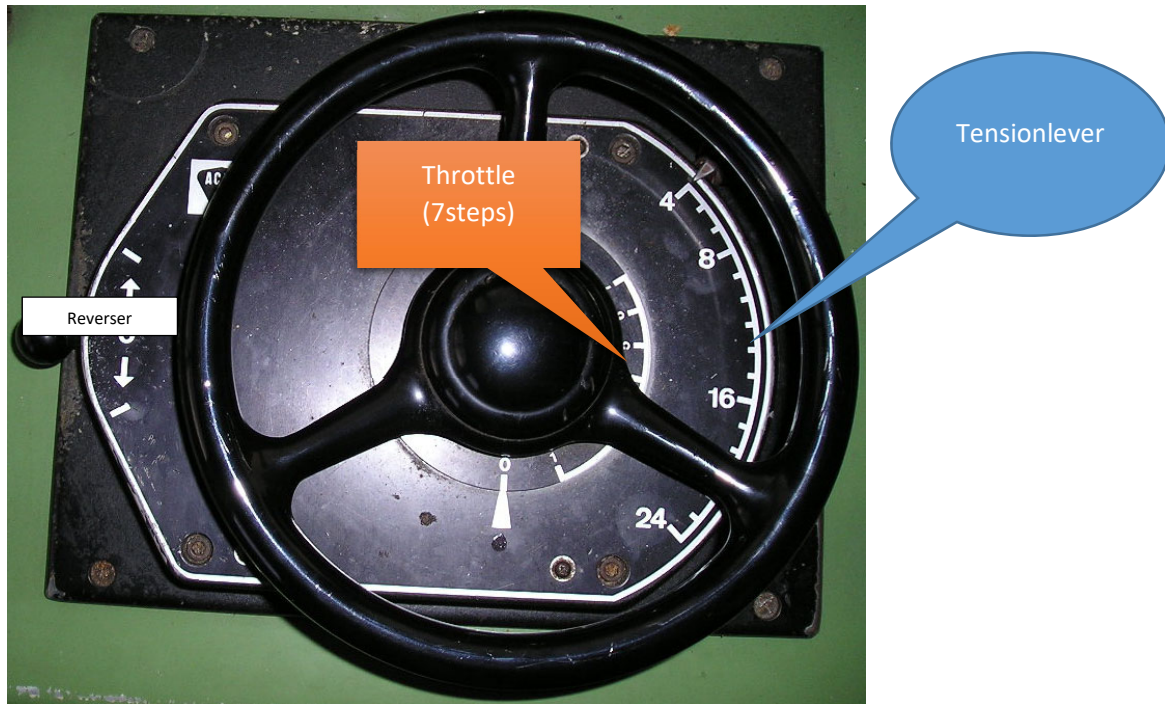


ORTS Traction & Tensionlever System Project

Preface:

On some (older) trains there is independant of "Trotthle" a tensionlever.
With some programmation, this can be work on ORTS too.



(tractionlever of NMBS HLE 12 locomotive, with no Dynamicbrakesection on it, Brothers of HLE 12 => HLE 21&27 have dynamicbrakesection on it)

My brainstorming:

Throttle have 7 steps, in ORTS this can stay work on normal Throttle system, important for read notchcontrolsection of .ENG file.

Tensionlever is other story, normal lever starts from Zero, be i hope with uppercasetoken that is possible to let start this on 4 like in real.

⇒ ORTSTensionLeverStart (4)

Than we need a stepconfiguration, normal is this 1, but for tensionlever like HLE 12/21/27 we need a stepvalue.

⇒ ORTSTensionLeverStepValue (1.5)

En finally we need a max step value too.

⇒ ORTSTensionLeverMaxSteps (24)

In real the values mean "tonnes" 24 => 240kN

For ORTS i think the code of ARR ForceSelector is good for this. But more basic.

ENG file config must be like this:

ORTSTensionLever (True) => True¹ for have, False for not.

ORTSTensionLeverMaxSteps (24) => Value 100 for have % sytem.

ORTSTensionLeverStepValue (1.5) => Must be work with decimal values too, like thumbnail.

ORTSTensionLeverStart (4) => Standard by Zero, in case of HLE 12/21/27 must be 4.

¹ If there is choose "true" this must be mean, that @ gamestart, until the end of game. This controller is active. (See page 2 => cruisecontrol too)

Cruisecontrol:

ORTSTensionLever must be work together with cruisecontrol too, when cruisecontrol of Jindrich be activated, cruisecontrol takes over & override ORTSTensionLever function.

When Cruisecontrol back to "manual" mode. ORTSTensionLever must be back active and work offcourse.

Better can be, that code of cruisecontrol gonna be based on ORTSTensionLever

Soo trains that have no Tensionlever and cruise control must be have this:

```
ORTSTensionLever ( False )
```

```
ORTSCruiseControl (
    Equipped ( True )
)
```

In this case Cruisecontrol works in throttlemodus.

If there is programmed:

```
ORTSTensionLever ( True )
```

```
ORTSCruiseControl (
    Equipped ( True )
)
```

Cruisecontrol take data of ORTSTensionLever too.

Why it is neccasery to make cruisecontrol independant of a tensionsystem?

⇒ Because it is possible too, to have a tension system on locomotives without cruisecontrol. And maybe fort he cruisecontrol code it is better too, to have that tensionsytem on the ordinary code.

For keymapping i prefer:

SHIFT + 0x20 => TensionLever Increase

SHIFT + 0x1E => TensionLever Decrease

CTRL + SHIFT + 0x20 => Cruisecontrol keymapping

CTRL + SHIFT + 0x1E => Cruisecontrol keymapping

Trains with no tensionlever and with cruisecontrol "on" must be set "Throttle" as tensionlever (Throttle & Tensionlever in 1).

The defenition of upercasetoken "UseThrottle (True)" can handle this. Or maybe this token is no longer need if ORTSTensionlever is born.

Also, this way can be solve the problem of moving Throttle when cruisecontrol is active too. Maybe not.