Summary:

- MHD instability rising in high temperature regime was suppressed by extra negative biasing of the endplates near-axis parts.

- Experimentally verified, that heat fluxes from the mirror are still described by a simple theoretical model in all the available values of electron temperature.

- Gas density up to $10^{14}$ cm$^{-3}$ in expander cells does not affect the plasma parameters of the GDT central cell.

- Magnetic field oscillations at frequencies of several tens of MHz are preliminary identified as DCLC mode rising in turning points of fast ions.