



SIGHT SYSTEM 1K13

INSTRUMENTS OF SENSING AND OBSERVATION FOR TANK T-72B

The modernization of observation and sighting devices (using thermal imaging technologies) was developed: 1K13-MBT, expected performance: 1K13-MBT working distance - detection of 5000 meters, recognition of 4000 meters around the clock.

The above-mentioned modernized observation and sighting devices use thermal imaging nodes (effective operation in low light conditions, snow, fog, smoke screens, dustiness, etc.), which is more modern and progressive than image intensifier of any generation, and provides significantly higher detection range and target recognition.

The devices ensure the continuity of combat and the organization of effective counteraction to the enemy. The instruments are made in accordance with the requirements of group 1.10 of GOST B20.39.304-76, climatic modification of UHL.

Time to enter the operating mode, to display the image in the eyepiece less is than 10 seconds.

Upgraded instruments 1K13-MBT fully retained standard dimensions and connecting fastenings and do not require any modifications in the design of armored vehicles.

Surveillance and sighting devices are produced with the necessary documentation, control by the military representation (representative office of the customer) and author's escort. Making changes (for example, replacing the main elements - matrices, digital signal processors, image output devices, etc.). It will be accompanied by testing in the volume of typical ones, with changes to the documentation and the release of relevant messages.

CONCLUSIONS

- The maximum possible price / quality / opportunity / localization is ratio.
- Significantly improved the characteristics of standard surveillance instruments and aiming tanks at minimum costs, eliminated the shortcomings due to the use of the old element base.
- All the needs for the organization of mass production are taken into account.
- Maximum unification (the least amount of changes in the design of the tank and the need to make appropriate changes to existing documentation, no need to change the base for training and retrain crews).
- It is necessary to take into account the features of the proposed instruments during the training of crews, there is no need to modify the existing simulator complexes to make changes in their design or electrical part, it is sufficient to replace the standard instruments in the simulators with the proposed ones.

TECHNICAL DATA

Designation	1K13-MBT	Difference from the standard device
Weight, kg	35	Without changes
Function	It is intended for the review of space, search, detection, recognition and aiming at objects in night and daytime	Designed to review the space, search, detection, recognition and aiming at facilities ONLY at night
Night channel design	Thermal imaging channel	image intensifier
The structure of the display device	Built-in eyepiece LCD micromonitor	-
Lighting level The efficiency of the device is not affected by the lighting level	The device is designed to work at any time and under different weather conditions. The device does not need IR illuminator	The efficiency of the device influences the level of illumination. The device requires an IR illuminator
Detection / recognition range of tank type objects (2.3 x 2.3m)	Detection - 5000m Recognition - 4000m	Active mode - 1200m, Passive mode - 500m, The firing range of the guided missile (ONLY IN THE LIGHT TIME OF THE DAY) is 4800m
Range of the guided projectile no less than m	Firing range of guided missile - 4800m	
External influences	The device meets the requirements of stability, strength and resistance to external factors of impact in accordance with the requirements of group 1.10 of GOST B 20.39.304-76, climatic modification of UHL	Without changes
Input voltage	27 (+2 -5) on-board network	Without changes
Influence of illumination	High resistance to light interference. The device is not sensitive to the illumination of IR illuminators and other sources of intense luminescence	LOW resistance to light interference. The device is sensitive to IR Illuminators and other sources of intense glow
Continuous operation time	18 hours	6 hours
Range of working conditions	Operating temp, C -40/+50 Storage temp, C -45/+70	Without changes