Nodal Liquid Conduit System

In YE 42, the planned successor to the Hemosynthetic Conduit System and the Nodal System was finally was brought into service on Star Army of Yamatai ships and bases.

The Nodal Liquid Conduit System is used for medical applications, recycling matter, conducting repairs, and fabricating some of the materials needed on Star Army of Yamatai ships. The science behind it is based on Hemosynthetics.

About The Nodal Liquid Conduit System

The previous Hemosynthetic Conduit System was based on Nekovalkyrja blood, and for the most part, the new Nodal Liquid Conduit System is still based on their blood. The previous system used three separate liquids; HSCS-1 (red) which flowed to the ship and was used in Hemosynthetic Reconstruction Tube and similar technology, HSCS-2 (brown) which dissolved organic matter and processed waste, and finally HSCS-3 (gray) which flowed through the ship carrying femtomachines for repairs. In the event of a hemosynthetic system rupture where HSCS-2 was involved the consequences were disastrous, sometimes with the entire Nekovalkyrja being dissolved if the breach was big enough.

The Nodal System used trillions of tiny femtomachines are distributed in the air, allowing anywhere to become a control panel with a simple swirl of a person's finger. A ship can use the system to sense what is happening throughout the interior, thus giving it more information to use for environmental control, security, and communication. Using the nodal system, a ship's computer may manifest itself anywhere on the ship in physical or holographic form. This system was also used to decorate the interior of some ships.

The new *Nodal Liquid Conduit System* (NLCS) that was developed in YE 42, marks an advance in femtomechanical technology as well as a better understanding of Hemosynthetics. The goal of the designers at Ketsurui Fleet Yards was to create a system that performed the functions of both the previous systems but was not hazardous to Nekovalkyrja or the crews of Star Army of Yamatai ships.

Statistics		
Year of Creation	YE 42	
Designer	Shinichiro Tomoko, Ketsurui Zaibatsu	
Nomenclature	Туре 42	
Alt. Nomenclature	N/A	
Manufacturer	Ketsurui Zaibatsu	
Fielded by	Star Army of Yamatai Only	
Availability	Mass Production	
Price	Starting at 100,000 KS	

Documentation

Last update: 2024/02/27 stararmy:systems:nodal_liquid_conduit_system https://wiki.stararmy.com/doku.php?id=stararmy:systems:nodal_liquid_conduit_system 10:34

Please see the Technicians Guide To Hemosynthetics for a technical guide to this system.

Nodal Liquid

The Nodal Liquid Conduit System still is built around the transport of fluid through the ship and its systems. Hemosynthetic Fluid is red and is transported through a system of arteries, veins, and capillaries much like one would expect to find in a Nekovalkyrja body. The slurry consists of water, complex amino acids, and femtomachines. The femtomachines are controlled by the ship or facility's PANTHEON, in their standard normal operation, the femtomachines are in a dormant state, like stem cells stored in the marrow of bones in a body they have yet to differentiate to be able to perform jobs.

Differentiation

When required, PANTHEON communicates to the femtomachines in the Hemosynthetic Fluid, and it issues an order for the femtomachines to carry out instructions. Differentiated nodal fluids carry out a number of functions:

Nekovalkyrja Applications

The Hemosynthetic Fluid can Repair (ie. Channel into Hemosynthetic Reconstruction Tube), Create (ie. mass cloning facilities), and (with proper authorization) Destroy Nekovalkyrja (This process is not instant. This is more for dissolving bodies that are beyond repair.).

Recycle

The femtomachines are instructed to breakdown organic or inorganic (with the exception of Zesuaium) matter. Once something is broken down into its elemental components it is fed into the Matter Collection System to be used in various systems of the ship or facility. The more complex the matter, the longer it takes for the Nodal fluid to break it down. This is utilized in the Star Army Standard Life Support Systems.

Fabricate and Repair

The Universal Hemosynthetic Fabrication System Type 43 allows for the creation of utility fogs, low-level fabrication in ship compartments (minor tool creation), and for higher-level fabrication in fabrication chambers (power armor and ship repair). Aerosol nozzles from the NLCS provides Nodal Liquid access to areas not accessible by tube or capillary.

A new capillary system for the interlocking Yamataium hull was added to the system in YE 43, it first appeared in the design for the Ke-T10 "Fukuro" Multi-Role Shuttle . Standardly Star Army of Yamatai

ships have capillaries which deliver hemosynth to interlocking Yamataium plating which boosts the annealing properties of Yamataium . In the new design, the system has a tweak where the femtomachinery components are programmed to respond to osmotic conditions. A breach or damage to the armor creates a concentration gradient, which triggers the fetomachinery to increase replication and flow along the gradient towards the damaged areas.

Self Replicating and Quality Managed

The lifetime of the average femtomachine is only minutes, which is why they are constantly in a low-level fabrication mode where they create themselves. Lineages are managed by PANTHEON, which performs diagnostics on the Hemosynthetic Fluid and will recycle anything that appears to be malfunctioning or compromised.

Contact with Lifeforms

Contact with most lifeforms is harmless. PANTHEON will instruct the femtomachine to deactivate if it comes into contact with an authorized lifeform. On the other hand, contact with the Nodal Fluid by Unauthorized or Enemy lifeforms can result in burns, abrasions, and in extreme cases the dissolving of areas of flesh on the body. PANTHEON can use the Nodal Liquid Conduit System as part of its defenses.

OOC Notes

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Updated to Include Subsystems from connected articles.

Approved by Syaoran on 2/6/2020

Star Army Logistics			
Supply Classificatio	n Class E - PARTS AND COMP	ONENTS	
Products & Items Database			
Product Categories	subsystems		
Product Name	Nodal Liquid Conduit System		
Nomenclature	Туре 43		
Manufacturer	Ketsurui Zaibatsu		
Year Released	YE 42		

Last update: 2024/02/27 stararmy:systems:nodal_liquid_conduit_system https://wiki.stararmy.com/doku.php?id=stararmy:systems:nodal_liquid_conduit_system 10:34

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Last update: 2024/02/27 10:34