Yggdrasillian Grappler

Grappler Arm

These fairly unusual devices extend from the weapons area and have a reach exceeding the physical ship and even slightly beyond the defensive shielding system (however, when shields are up, the arms can not pass through the shields when they are activated). The original functions of these arms are numerous.

The first function is to push away debris from the ship which strays too close without stressing the SPIKE, and without needing to activate the primary shields. Activating the primary shields could prevent or complicate bringing matter, shuttles, mecha, or rescued people inside the ship. It could also damage sensitive components which may be worth being salvaged, and prolong the rescue process, where every moment is critical. The grapplers can also be used to grasp and manipulate sensitive objects that can't be carried by the graviton beam projectors. The reach of the grapplers actually permit them to carry objects and pods to the rear of the ship, where a third internal grappler system can carry the salvaged object or the escape pod inside without delay. This further speeds up the rescue process if a mecha or shuttle is unavailable. As such, the grapplers, while relatively low-tech, are extremely reliable and a fantastic asset to the nature of salvage. The grapplers are also very high speed, and can be controlled manually with a glove system, a tactile interface, or more normally by an independent computer system. The grip of the Yggdrasill Grappler System (YGS) is variable and can range from very light on sensitive components to strong for ripping apart bulkheads (or crushing enemy mechas), which is one of the reasons it has its own independent computer system.

The grapplers are made up of five digits, with treads that act as fingerprints to grip objects. No two treads are meant to be alike, so that if a grappler system is used in a crime, it can be traced. Filed down treads are harder to trace, but make a grappler's grip less functional. Each digit has three joints, and the whole assembly is mounted on a larger arm which has three joints. The fingers rotate around a central point on a very dynamic system, and all fingers are opposable (another need for the independent computer system: A normal human hand is incapable of using the grapplers to their full advantage with tactile or glove controls. Even a SLICS or SPINE would have problems, as it would require nerve connections which do not exist due to the dynamic and omni-opposable nature of the fingers. However, there is a "manual mode" which locks the fingers in a more humanoid configuration if the computer is disabled.). This allows a much better grip than even a human hand can provide on the oddly-shaped debris which the ship commonly comes in contact with.

One of the primary attack patterns, once the shields are down, would be to disable the grappler systems. The grapplers, however, are very fast-moving and efficient in their movement. The best bet is to attack them where they affix to the ship. Unfortunately, if you manage to get past the grapplers, which can actually turn back toward the ship, you also have to deal with any point defense systems present.

Grappler Digit Electrodes

(5 per grappler)

Each finger on the grappler possesses an electrode which appears as a claw. These are used to power damaged devices that may have their own thrusters and be too large to store, or to weld damaged components, such as ship hulls or circuitry, even those of the ship they are equipped on. The ship, with the computerized grapplers and larger scale, can do a great deal of repair work in a relatively swift amount of time…as long as the work is simple enough for the computer system to understand. The more exotic and elaborate repairs must still be done manually, and take time, even with the grapplers. In this case, Power Armor are more prudent, though the Yggdrasill can switch to tactile or manual mode for this if it has a skilled grappler operator. Unfortunately, due to the rarity of the ship, not many such operators, save the ship's original pilot, are even available. Due to various welding needs, current and voltage can also be calibrated dynamically by computer or tactile control. The grappler computer system can communicate with the ship's sensors for this task, and if repairing the ship itself, it can access the ship's own schematics and internal sensor system, even polling affected systems to determine status.

The electrode "claws" can also be used as a power armor disabling feature or weapon. If an electrode is used on a power armor not designed to protect against excessive electrical voltage or current, the electrodes can damage or fry the control system of a power armor. If the pilot is using a sort of neural interface, such as SLICS or SPINE, the nervous system of the pilot can be critically damaged. However, most power armor with a type of neural interface are military-made, and likely of a high enough quality to properly shield their pilots' nervous systems from electrical attack. It is still a dangerous system, in any regard.

Grappler Pulser

(1 per grappler)

Each grappler arm has a Pulser in the digit armature, where the "palm" would be in a hand. This can be used for applying wide pulses of energy to push larger debris chunks or asteroids, be it for searching for materials, carrying an object of larger mass than the ship itself to a nearby location in the same star system, or more narrow blasts used to crack or blast apart large targets. This is good for mining purposes, as well as clearing wreckage for larger ships in a rescue effort. Of course, this can also be used in a weapons capacity, as omni-directional blasters to protect the ship, which can redirect their position and angle rapidly by allowing the Grappler computer to communicate with the targeting system (This is the only way the grapplers can be used as a weapon while the ship's shields are engaged). Also, if the grapplers manage to grab a power armor in battle, and the electrodes do not paralyze the power armor, a point-blank blast could deal considerable damage. Like the other YGS parts, this has several dynamic attributes, such as intensity, frequency, and focus/beam width, and is controlled manually by a tactile system, or much more often by the grappler computer system.

The manner in which the Pulsers operate warrants mention. The Pulsers can either push or blast an object by altering the energy output, the frequency the output is modulated to, and the focus. To push an object, the beam is set to a relatively low energy setting at a high frequency, to simulate a gentle, but

effectively constant, force against the object. As the object gains momentum, the energy output is gradually increased until the object has reached the desired speed, and then the object moves on momentum, the energy of the pulses being lowered, but decreased or increased as needed. The frequency likely remains constant, and can be focused as needed depending on the surface area of the object being pushed. This is a way of moving objects too large for bringing inside or are too sensitive or volatile to be moved with the Graviton Beam Projectors or the grapplers themselves. To blast something apart, the digits are moved into a position where they will not be hit be the Pulser, and a higher energy output is released right off the bat, usually at a lower frequency/rate of fire to conserve energy. However, if needed, a relatively high frequency of energy can be used to fire an effectively constant beam. However, this is relatively draining for the ship's power systems if other systems are enabled, though not so much if the beam is narrow enough. The number of factors almost require a computer-controlled system if the Pulser is to be used in combat.

It has been determined that the "pushing" action of the Pulser can also become a makeshift shield that defends the digits and "palm" assembly of the grappler. However, while engaged in pushing/shield mode, no electrode or melee functions can take place. The Pulser, however, can switch frequencies, focus, and energy output relatively quickly, switching the Pulser from pulse mode to blast mode very quickly. The result is a shielding system which can block an attack and fire a blast literally as soon as the attack has been halted, possibly with a physical reaction time on the order of microseconds when controlled by the grappler computer system. In addition, in emergencies where conventional communications systems are jammed, the Pulsers can be used on maximum focus arc, low energy amplitude to send out a frequency modulated signal, capable of encryption, not dissimilar to FM radio. However, this is a not a faster-than-light communications system, and at this time, is almost unique to the Yggdrasillian line. This communications system is called YEPCS (Yggdrasill Emergency Pulser Communications System, pronounced "yep-kiss").

OOC Information

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