105mm Replenisher
Stryker mobile gun system

01 Description

The Stryker Mobil Gun System (MGS) Replenisher magazine provides reserve storage of ten 105mm rounds. Upon demand, the magazine is rotated for fast and accurate selection of rounds, which can be forwarded to the ready magazine (eight rounds) located in the gun turret. The Replenisher houses the rounds in a circular magazine made up of horizontal interlocking storage tubes that hold the rounds securely during vehicle operations. The Replenisher consists of four basic subsystems: the Drum Assembly, the Transfer Arm Assembly, the Magazine Drive System, and the Frame. The Drum Assembly (or Magazine) is an automated storage structure for the rounds.

The Magazine Drive is a hydraulic system used to position the Drum for both loading and transfer of rounds. The Transfer Arm Assembly is a hydraulically driven rammer that forwards rounds through a funnel to the ready magazine. Manual backup operation can be performed in case of loss of power.

For loading, the magazine rotates an empty tube to the load position, and a round is inserted by hand from the rear of the vehicle, with the rear hatch down. For transfer of rounds within the vehicle, the Drum rotates to the selected round type, and the Transfer Arm Assembly, a chain driven pusher, drives the round forward thru the funnel and into the ready magazine. The Transfer Arm Assembly retreats, and the Drum rotates to the next round, ready to transfer it, all at a rate of 10 rounds per minute.

02 Key features and benefits

- No manual transfer of rounds is necessary between reserve and ready magazine segments
- Automatically transfers up to 10 rounds per minute
- Highly reliable mechanization reduces crew workload

03 Applications

- Stryker Mobil Gun System

04 Contact

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Meggitt Defense Systems consistently meets requirements to increase capacity and reliability while decreasing volume and weight. We have a solid track record in accelerated design-to-prototype-to-production, which has been demonstrated in the fielding of the Stryker Replenisher.

More than twenty years of research and development culminate in the Stryker MGS Replenisher, of which more than 300 have been delivered.

**Specifications**

<table>
<thead>
<tr>
<th>Specification</th>
<th>Details</th>
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<tbody>
<tr>
<td>Weight</td>
<td>470 lbs. (empty)</td>
</tr>
<tr>
<td>Dimensions</td>
<td>(57.59&quot;) x (35.19&quot;) x (29.59&quot;)</td>
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<tr>
<td>Volume</td>
<td>34.7 ft</td>
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<tr>
<td>Power</td>
<td>Hydraulic or manual drive</td>
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<td>Compatible ammunition</td>
<td>Standard 105mm NATO rounds, HEP, HEAT, TP, HEP TP, TPDS, APFSDS and APFSDS-T</td>
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Autoloading engineering highlights from which the MGS Replenisher emerges include:
- **Tank Test Bed (1983)** — Automated caliber transfer integrated with weapon system
- **Fastdraw (1986)** — Self-supporting modular storage canister assembly
- **Compact Autoloader (1996)** — Robotic transfer with access to entire ordinance complement
- **RAMM Autoloader (2001)** — Self-locking zipper chain with rammer

**Outline details**

Note: Due to continuous process improvement, specifications are subject to change without notice. TCO Review # 172