PRODUCT BULLETIN

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AT FLUID HD668

Allison Transmission Certified AT Fluid

To reduce the burden on drivers and improving safety, heavy-duty vehicles such as routes and tour buses are being converted to AT, many of which are adopted by overseas AT manufacturer's transmissions. **AT FLUID HD668** is an approved fluid that meets the TES668® standard, the latest specification by Allison Transmission, a leading global AT manufacturer. Through the combination of high-performance base oil and advanced additive formulation, **AT FLUID HD668** meets the most stringent standards required of ATF for stability, lubrication, and low-temperature performance. It demonstrates sufficient performance even in harsh operating environments of heavy-duty vehicles.

● Special Features

1. TES 668® Certified Fluid

Allison Transmission recommends the use of TES 668® certified fluids to extend fluid change intervals and enhance the performance and durability of transmissions in all operating conditions. **AT FLUID HD668** is a TES 668® certified fluid. However, it is not applicable for the TC10 (10-speed AT).

2. High Viscosity Index and Good Low-Temperature Flow Properties

AT FLUID HD668 provides good flow properties to reduce the burden on the transmission when starting the engine and ensure smooth gear shifting at low temperatures and maintains a suitable viscosity at high temperatures, because it is blended with high-performance base oils and carefully selected viscosity index improvers.

3. Excellent Oxidation Stability

AT FLUID HD668 suppresses oil deterioration and prevents the occurrence of varnish and sludge, because it also contains carefully selected oxidation inhibitors in high-performance base oils that provide excellent oxidation stability.

4. Superb Friction Characteristics

AT FLUID HD668 demonstrates appropriate friction characteristics against wet clutches, brakes, etc. by balancing the carefully selected additives including friction modifiers. **AT FLUID HD668** maintains excellent friction characteristics over extended periods, helping to prevent extended shift times and reduce the increase in shift shock.

5. Excellent Anti-Shudder Durability

AT FLUID HD668 possesses an exceptionally long anti-shudder lifespan, effectively reducing vehicle vibration and noise over extended periods.

6. Excellent in anti-wear performance and extreme pressure property

AT FLUID HD668 prevents abrasion and seizure of each part of the transmission even when used for a long time, because it contains carefully selected anti-wear agents (extreme pressure agents).

7. Good Compatibility with Transmission Components

AT FLUID HD668 is compatible with non-metallic components such as seals used in various parts of the transmission, as well as with metals like washers and clutches, resulting in minimal impact on these components and allowing for the long-term maintenance of performance in fluid couplings and fluid transmissions.

8. Outstanding Performance in Other Areas

AT FLUID HD668 also offers outstanding antifoaming, detergency, and other types of performance required for ATFs.

● Applications

Automatic Transmissions by Allison Transmission [excluding TC10 (10-speed AT)]

Allison 1000 Series, 2000 Series, 3000 Series, 4000 Series, H40/50EP

● Containers

200-liter drum and 20-liter can

● Typical Properties of AT FLUID HD668

Color			Red
Density	(15°C)	g/cm^3	0.850
Flash point	(COC)	°C	212
Kinematic viscosity	(40°C)	mm^2/s	32.6
Kinematic viscosity	(100°C)	mm^2/s	6.69
Viscosity index			168
Pour point		°C	–52.5

Note: The typical properties may be changed without notice.(October 2023)

●Handling Precautions

- **For the handling of this product:** Please read the Safety Data Sheet (SDS) for this oil and the handling precautions listed on the product container carefully before use.
- **Regarding obtaining the SDS:** Please note that Safety Data Sheets (SDS) should be obtained via commercial channels and cannot be provided by the ENEOS Customer Center.
- The properties and performance listed are based on measurements and insights from our testing methods and do not guarantee accuracy or completeness. The typical properties may be changed without notice.