



Structured breakdown of the performance and benefits of SWEPCO 512 Premium Performance Booster, tailored for mining, cement, and heavy-industry hydraulic applications:

Core Performance Enhancements

- **Extended Oil Life**
 - Contains advanced anti-oxidants that slow down thermal and oxidative degradation.
 - ASTM D-2272 RPVOT tests show oil life can be extended by **45–59%**, depending on the base oil quality.
 - Typically delivers **50% or more longer drain intervals**, reducing overall hydraulic oil costs.
- **Seal Conditioning & Leak Prevention**
 - Expands seal volume to stop leaks, cutting costly oil losses.
 - Includes **UV Detection Dye** for quick identification of stubborn leaks during maintenance.
- **Improved Water Separation**
 - High-performance demulsifiers force rapid water separation.
 - Prevents rust, corrosion, and pump wear by enabling complete purging of water from the system.
- **Reduced Pump Wear**
 - Less cavitation and water contamination means longer pump life and lower repair costs.
- **Lower Operating Temperatures**
 - Prevents oil thinning at high temperatures and oxidation-driven heat buildup.
 - Results in more stable viscosity, better pump efficiency, and responsive hydraulics.
- **Foam Control**
 - Reduces foaming that causes surging and blown hoses.
 - Ensures smoother hydraulic operation and fewer hose failures.





Operational & Economic Benefits

- **Cost Savings**
 - Extends drain intervals → lower oil purchase frequency.
 - Reduces waste oil disposal costs.
 - Minimizes downtime and maintenance labor.
- **Productivity Gains**
 - More responsive hydraulics due to stable viscosity.
 - Improved pump efficiency translates to faster cycle times in heavy equipment.
- **Versatility Across Industries**
 - Recommended for **construction, forestry, waste collection, utilities, mining, and cement operations.**
 - Effective in excavators, loaders, cherry pickers, skidders, garbage trucks, dump trucks, and other hydraulic systems.

Application Guidelines

- Treat rate: **1:16** (6% concentration).
- Example: An 8-gallon hydraulic system requires **0.5 gallon SWEPCO 512 + 7.5 gallons new conventional hydraulic oil.**
- **Important:** Only use with **new mineral oil or PAO-based hydraulic oils.** Do not exceed the recommended treat rate.

“SWEPCO 512 transforms **standard hydraulic oils into premium-performing fluids** by extending life, preventing leaks, improving water handling, and reducing wear—all at a fraction of the cost of switching to premium oils. It’s essentially a **performance upgrade kit** for conventional hydraulic oils, delivering measurable ROI in maintenance, uptime, and oil management.”



Let's break this down clearly: Petron HYDROTUR AW 68 is already a high-quality anti-wear hydraulic oil with good oxidation resistance, hydrolytic stability, and compliance with major OEM specifications. When you treat it with SWEPCO 512 Premium Performance Booster (1:16 ratio), you essentially upgrade its baseline performance into the "premium" category. Here's how SWEPCO 512 contributes to boosting HYDROTUR AW 68:

Contributions of SWEPCO 512 to HYDROTUR AW 68

1. Oxidative Life Extension

- HYDROTUR AW 68 has solid oxidation resistance, but SWEPCO 512's advanced anti-oxidants extend oil life by **45–59% (ASTM D-2272 RPVOT)**.
- This means **longer drain intervals**, reduced oil purchases, and lower disposal costs compared to untreated HYDROTUR AW.

2. Seal Conditioning & Leak Prevention

- HYDROTUR AW provides anti-wear protection but does not actively condition seals.
- SWEPCO 512 expands seal volume to stop leaks and adds **UV detection dye**, making leak tracing faster and reducing costly oil losses.

3. Enhanced Water Separation

- HYDROTUR AW has hydrolytic stability, but SWEPCO 512 adds **high-performance demulsifiers**.
- This forces rapid water separation, preventing rust, corrosion, and pump wear—critical in cement and mining environments with moisture exposure.

4. Pump & Component Protection

- HYDROTUR AW meets OEM anti-wear standards, but SWEPCO 512 reduces cavitation and water contamination further.
- Result: **less pump wear, smoother operation, and extended equipment life.**

5. Thermal Stability & Lower Operating Temperatures

- HYDROTUR AW has a viscosity index of ~103, but SWEPCO 512 stabilizes viscosity across wider temperature ranges.
- Prevents oil thinning at high temps, reduces oxidation-driven heat buildup, and keeps hydraulics more responsive.

6. Foam Control

- HYDROTUR AW does not specifically address foaming.
- SWEPCO 512 suppresses foam, preventing surging and blown hoses—common issues in high-pressure hydraulic systems.



Net Performance Boost

By combining **Petron HYDROTUR AW 68** with **SWEPCO 512**, you achieve:

- **Premium oil performance without premium cost**
- **Extended drain intervals (50%+)**
- **Leak prevention & faster maintenance**
- **Superior water handling**
- **Lower operating temperatures**
- **Reduced downtime & higher productivity**

“Think of HYDROTUR AW 68 as a **solid OEM-compliant hydraulic oil**, and SWEPCO 512 as the **performance upgrade kit** that elevates it into a premium fluid—ideal for mining and cement operations where uptime, leak control, and long drain intervals are critical.”

Side-by-side comparison table showing how Petron HYDROTUR AW 68 performs on its own versus when treated with SWEPCO 512 Premium Performance Booster. This format is ideal for procurement memos and technician training because it makes the upgrade effect visually clear:

Comparative Performance Table

HYDROTUR AW 68 vs. HYDROTUR AW 68 + SWEPCO 512

Performance Area	HYDROTUR AW 68 (Baseline)	HYDROTUR AW 68 + SWEPCO 512 (Boosted)
Oxidative Life	Good oxidation resistance	Extended by 45–59% (ASTM RPVOT) → 50%+ longer drain intervals
Seal Performance	Standard anti-wear focus	Seal conditioners expand seal volume to stop leaks; UV dye for fast leak detection
Water Handling	Hydrolytic stability	Rapid water separation via demulsifiers → less rust, corrosion, pump wear
Pump Protection	Meets OEM anti-wear specs	Reduced cavitation & water contamination → less pump wear, smoother operation
Thermal Stability	VI ~103, stable viscosity	Improved viscosity retention across wider temps → lower operating temperatures
Foam Control	Not specifically addressed	Foam suppression prevents surging & blown hoses
Maintenance Impact	OEM-compliant drain cycles	Extended drains, reduced downtime, lower disposal costs, faster maintenance



Cost Efficiency	Standard oil cost profile	Premium performance at fraction of premium oil cost
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Key Procurement Message

By treating **Petron HYDROTUR AW 68** with **SWEPCO 512**, you transform a solid OEM-compliant oil into a **premium hydraulic fluid**. The booster delivers measurable ROI through:

- Longer oil life and drain intervals
- Leak prevention and faster troubleshooting
- Superior water handling and pump protection
- Lower operating temperatures and reduced downtime