

Product Data Sheet



Servosystem HLP

Description

Servosystem HLP oils are high performance hydraulic oils having high FZG rating. These oils provide superior antiwear protection, excellent oxidation and thermal stability, outstanding hydraulic stability and good demulsibility. Servosystem HLP oils also possess superior filterability characteristics. These oils provide problem free service and have been found to be far superior in performance compared to other commercially available anti-wear, heavy duty hydraulic oils.

Performance, Features and Benefits

- Ensure long service life due to outstanding oxidation and thermal stability
- Provide sludge free high temperature performance.
- Provide excellent filterability characteristics
- Readily separate from water because of excellent demulsibility characteristics
- Provide superior long term protection against rust and corrosion
- Ensure overall problem free performance

Application

Servosystem HLP oils are recommended as a fluid media in hydraulic systems, operating under extremely severe conditions. These oils are recommended for sophisticated high performance electro-hydraulic or numerically controlled systems. Servosystem HLP oils are also recommended for lubrication of screw compressors requiring oil of excellent thermal stability and low CCR value. These oils are not suitable where the components are of silver or silver coated.

Performance Standards

Servosystem HLP oils are formulated to meet the following specifications:

- Cincinnati Milacron P-69
- DIN 51524 Part 2
- DENISON HF-O
- US STEEL 127
- IS : 11656-1986 (Reaffirmed 2018)
- IS:10522-1993(Reaffirmed 2019)
- ATLAS COPCO R8 & R9, HOESCH HLP

Approvals

In use by most large industrial houses in India.

Also approved by OEMs like : Fives Cincinnati ; FLSmidth ; KHDHumboldt

Typical Physical Characteristics

| Parameters | Method | 10 | 22 | 32 | 46 | 68 | 100 | 150 |
|--------------------------------------------------|-------------|-------|-------|------------------|------------------|------------------|------------------|------------------|
| Appearance | Visual | Clear | Clear | Clear | Clear | Clear | Clear | Clear |
| Colour | ASTM D1500 | <1.5 | <1.5 | <1.5 | <2.0 | <2.0 | <2.0 | <2.5 |
| Flash point COC, °C | ASTM D92 | 132 | 178 | 221 | 232 | 232 | 238 | 243 |
| Pour point, °C | ASTM D97 | -36 | -27 | -24 | -21 | -18 | -15 | -15 |
| Kinematic viscosity at 40°C, cSt | ASTM D445 | 10.1 | 22.5 | 31.6 | 46.7 | 68.0 | 97.5 | 107.6 |
| Viscosity Index | ASTM D2270 | 105 | 110 | 110 | 110 | 110 | 100 | 99 |
| TAN, mg KOH/g | ASTM D974 | 0.55 | 0.55 | 0.55 | 0.55 | 0.55 | 0.55 | 0.55 |
| Water Separability @ 54/82°C, 40-37-3 in minutes | ASTM D1401 | 5 | 5 | 10 | 10 | 10 | 15 | 20 |
| Rust Test | ASTM D 665B | Pass | Pass | Pass | Pass | Pass | Pass | Pass |
| FZG Load Stage | DIN 51354 | - | - | 12 th | 12 th | 12 th | 12 th | 12 th |

Health, Safety & Environment

Based on available information, this product is not expected to produce adverse effects on health when used for the intended application and the recommendations provided in the Material Safety Data Sheet (MSDS) are followed. MSDS's are available upon request through your sales contract office, or at <https://cx.indianoil.in/>. This product should not be used for purposes other than its intended use. If disposing of used product, take care to protect the environment.

02JAN 2020

All trademarks used herein are trademarks or registered trademarks of Indian Oil Corporation or one of its subsidiaries unless indicated otherwise. Values reported are typical of those obtained with normal production tolerance, and may vary from batch to batch. Due to continual product research and development, the information contained herein is subject to changes without notification. Material Safety Data Sheets are available for all our products and should be consulted for appropriate information regarding storage, safe handling, and disposal of the product. All products, services and information supplied are provided under our standard conditions of sale.

For further information, please contact our nearest office or:

Technical Services Department,
Indian Oil Corporation Ltd.,
G-9, Ali Yavar Jung Marg, Bandra (E),
Mumbai – 400051

E-Mail: servotechserv@indianoil.in or
servots@indianoil.in | <https://cx.indianoil.in/>