Technical Data Sheet

Formerly Known As: **Shell Donax TC 10W**

Shell **Spirax** ***S4 CX 10W***

High performance off-highway transmission and hydraulic oil

Shell Spirax S4 CX 10W is designed to provide operators with trouble-free operation and maximum reliability for the lifetime of the equipment. Spirax S4 CX 10W meets the demanding requirements of modern transmission, oil-immersed brake and hydraulic systems fitted to heavy-duty off-highway equipment.

DESIGNED TO MEET CHALLENGES

Performance, Features & Benefits

- **Frictional performance and material compatibility**
  Highly consistent and reliable friction performance when used with the advanced metallic and non-metallic materials found in modern systems. Minimal clutch slippage, smooth and quiet brake operation, and trouble-free hydraulic and transmission operation.
- **Anti-wear protection**
  The shear-stable SAE 10W viscosity grade is free from viscosity index (VI) improvers and thickeners and give the best protection of heavily loaded components.
- **Low temperature characteristics**
  Formulated to meet low temperature viscosity and fluidity requirements, providing superior protection during start-up and low operating temperature conditions.
- **Optimum mechanical performance and long oil life**
  Wide-ranging protection for critical components, such as bronze friction discs in powershift transmissions and highly loaded hydraulic pumps.
- **Vickers 35V25 hydraulic pump test**
  Excellent performance in this demanding test.
- **Oxidation stability**
  Contains inhibitors to control oxidation and deposit formation. Protects both ferrous and non-ferrous metals from corrosion. Suppresses foaming. With improved flow properties at low temperatures enhances efficiency.

Main Applications



- Shell Spirax S4 CX 10W is recommended for use in heavy duty off-highway equipment produced by the world's leading manufaturers including; Caterpillar, Komatsu, Komatsu-Dresser and in transmissions manufactured by Eaton, Eaton Fuller, ZF, Dana, Rockwell amongst others:
- Powershift transmissions
- Oil immersed brakes
- Hydraulic systems

Specifications, Approvals & Recommendations

- Caterpillar Tractor TO-4
- ZF TE-ML 03C
- Suitable for use in applications where Allison C-4 type fluids are required
- Shell Spirax S4 CX 10W is suitable* for use in many powershift or manual transmissions, wet brake systems, and many off-highway hydraulic systems including those of Komatsu and Caterpillar.

  For a full listing of equipment approvals and recommendations, please consult your local Shell Technical Helpdesk.

  *Please check equipment manuals for appropriate selection of viscosity grade.

Typical physical characteristics

Properties			Method	Shell Spirax S4 CX 10W
SAE Viscosity Grade			SAE J 300	10W
Kinematic Viscosity	@40°C	mm^2/s	ISO 3104	36
Kinematic Viscosity	@100°C	mm^2/s	ISO 3104	6
Density	@15°C	kg/m^3	ISO 12185	884
Flash Point (COC)		°C	ISO 2592	200
Pour Point		°C	ISO 3016	-36

These characteristics are typical of current production. Whilst future production will conform to Shell's specification, variations in these characteristics may occur.

Health, Safety & Environment

- **Health and Safety**

  Shell Spirax S4 CX 10W is unlikely to present any significant health or safety hazard when properly used in the recommended application and good standards of personal hygiene are maintained.

  Avoid contact with skin. Use impervious gloves with used oil. After skin contact, wash immediately with soap and water.

  Guidance on Health and Safety is available on the appropriate Material Safety Data Sheet, which can be obtained from http://www.epc.shell.com/

- **Protect the Environment**

  Take used oil to an authorised collection point. Do not discharge into drains, soil or water.

Additional Information

- **Advice**

  Advice on applications not covered here may be obtained from your shell representative.