Technical Data Sheet

Previous Name: **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, or the OEM Approvals website.

  *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.

Technical Data Sheet

Previous Name: **Shell Donax TC 30**

Shell **Spirax** *S4 CX 30*

High Performance Off-Highway Transmission and Hydraulic Oil for Many Applications

Shell Spirax S4 CX 30 is designed to provide operators with trouble free operation and maximum reliability for the lifetime of the equipment. Spirax S4 CX meets the demanding requirements of modern transmission, final drive, oil immersed brake and hydraulic systems fitted to heavy-duty off-highway.

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 transmission operation.
- **Anti-wear protection**
  The shear-stable SAE 30 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 gears in final drives and differential units.
- **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 30 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 other:
- Powershift Transmissions
- Final drives
- Oil immersed brakes
- Hydraulic systems

Specifications, Approvals & Recommendations

- Caterpillar Tractor TO-4
- ZF TE-ML 03C, 07F
- Suitable for use in applications where Allison C-4 type fluids are required.
- Shell Spirax S4 CX 30 oil is suitable for use in many powershift or manual transmissions, wet brake systems, and some hydraulic systems including Komatsu.

  For a full listing of equipment approvals and recommendations, please consult your local Shell Technical Helpdesk, or the OEM Approvals website.

Typical Physical Characteristics

Properties			Method	Shell Spirax S4 CX 30
SAE Viscosity Grade			SAE J 300	30
Kinematic Viscosity	@40°C	mm^2/s	ISO 3104	93.9
Kinematic Viscosity	@100°C	mm^2/s	ISO 3104	10.9
Density	@15°C	kg/m^3	ISO 12185	899
Flash Point (COC)		°C	ISO 2592	205
Pour Point		°C	ISO 3016	-30

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 30 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.

Previous Name: **Shell Donax TC 50**

Shell Spirax S4 CX 50

High Performance Off-Highway Transmission and Hydraulic Oil for Many Applications

Shell Spirax S4 CX 50 is designed to provide operators with trouble free operation and maximum reliability for the lifetime of the equipment. Spirax S4 CX 40 meets the demanding requirements of modern transmission, final drive, oil immersed brake and hydraulic systems fitted to heavy-duty off-highway.

Applications

Spirax S4 CX 50 is recommended for use heavy duty off-highway equipment produced by the world's leading manufatures including; Caterpillar, Komatsu, Komatsu-Dresser and in transmissions manufactured by Eaton, Eaton Fuller, ZF, Dana, Rockwell amongst other:

- Powershift Transmissions
- Final drives
- Oil immersed brakes
- Hydraulic systems

Performance Features and 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 transmission operation.
- ***Anti-wear protection***
  The shear-stable SAE 50 viscosity grade gives 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 gears in final drives and differential units.
- ***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.

Specification and Approvals

Spirax S4 CX 50 is suitable for use where the following specifications are called for:

Caterpillar Tractor - TO-4
Suitable for use in applications where Allison C-4 type fluids are required

Advice

Advice on applications not covered in this leaflet may be obtained from your Shell Representative.

Health and Safety

Guidance on Health and Safety are available on the appropriate Material Safety Data Sheet, whcihcan be obtained from your Shell representative.

Protect the environment

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

Typical Physical Characteristics

Spirax S4 CX 50			
SAE Viscosity grade		SAE J 300	50
Kinematic Viscosity		ISO 3104	
at 40°C	mm^2/s		217.4
at 100°C	mm^2/s		19.0
Density at 15°C	kg/m^3	ISO 12185	910
Flash Point COC	°C	ISO 2592	205
Pour Point	°C	ISO 3016	-18

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