# DESIGNED TO KEEP GOING. JUST LIKE OUR AXLE, GEAR AND TRANSMISSION OILS – SHELL SPIRAX.



**DESIGNED TO MEET CHALLENGES** 

# EVERY PART OF YOUR VEHICLE HAS BEEN METICULOUSLY ENGINEERED, SO YOU WANT TO BE SURE THAT YOU CHOOSE A LUBRICANT THAT HAS BEEN DESIGNED TO ENSURE YOUR EQUIPMENT IS WELL PROTECTED AND WORKS EFFICIENTLY.

The Shell Spirax range of axle, gear and automatic transmission fluids has been developed to assist drivers, fleet owners and owner operators to select the oil that will deliver optimum value to their operations through enhanced wear protection, long oil life and efficiency.

# **PERFORMANCE YOU CAN COUNT ON**

The benefits of Shell Spirax S6 GME and Shell Spirax S6 AXME have been demonstrated through extensive laboratory tests and over 20 million kilometres of field trials. Shell's axle and gear oils are developed in close co-operation with customers and equipment manufacturers. The Shell Spirax range is approved by many vehicle and automotive component manufacturers.

> **GEARBOXES** AND AXIES

PRODUCT-NAME SUFFIX KEY							
Α	=	Axle	LS	=			
AT	=	Transaxle	Μ	=			
ATF	=	Automatic transmission fluid	Μ	=			
D	=	Daimler/Dexron®	Μ	=			
E	=	Energy efficiency	Т	=			
FD	=	Final Drive	V	=			
G	=	Gear	Χ	=			
HD	=	Heavy duty	Z	=			

Tractor

Voith

7F

# **AXLES**

MANUAL TRANSMISSIONS	AND AXLES	
Shell Spirax 56 GME SYNTHETIC • Energy efficient • Maintenance saving		Shell Spirax S6 AXME SYNTHETIC Exceptional performance E nergy efficient Maintenance saving Marved fuel efficiency and lower maintenance
	<ul> <li>Shell Spirax S4 AT</li> <li>SEMI-SYNTHETIC</li> <li>Proven Performance</li> <li>For use in Gearboxes &amp; Axles</li> </ul>	Shell Spirax S5 ATE SEMI-SYNTHETIC  Exceptional performance for transaxles Energy efficient  Shell Spirax S5 CFD M  SEMI-SYNTHETIC Proven Performance Caterpillar FD-1
Shell Spirax 53 T Proven Performance Universal Tractor Oil	Shell Spirax 53 AX Proven performance Designed for OEMs/MAN/Daimler Market Spirax 52 A Shell Spirax 52 A Proven performance	Shell Spirax \$3 ALS <ul> <li>Proven performance</li> <li>Limited slip</li> <li>ZF approved</li> </ul> Shell Spirax \$2 ALS <ul> <li>Proven performance</li> <li>Limited slip</li> <li> <ul> <li>Imited slip</li> <li>Imited slip</li> <li>Imited slip</li> </ul></li></ul>

Contact your Shell representative to find out about the full range of Shell Spirax axle, gear and automatic transmission fluids, including products specifically designed for the construction and agriculture industries

# THE BENEFITS OF USING DEDICATED AXLE AND GEAR OILS

Many gearboxes and axles use different materials and operate under different conditions. A single oil used for both applications may lead to a compromise in either or both the axle and gearbox wear protection and efficiency. Shell Spirax oils have been specifically designed to meet the challenges and requirements of many industry-leading automatic transmission, axle and gear manufacturers.

**GEARBOXES AND** 

ADVANCED

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**PROTECTION** 

**EFFICIENT** 

INCREASINGLY

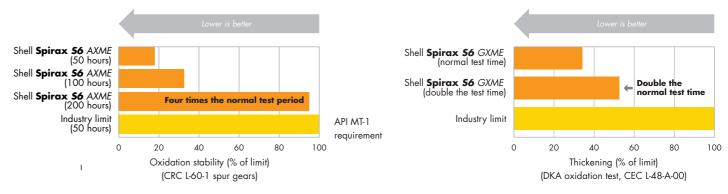
PREMIUM

MAIN LINE

TIER

The oils are formulated by Shell's scientists to deliver the specific oxidation, shear stability and performance characteristics needed to provide excellent protection, power and efficiency for each application.





#### **PROVEN WEAR PROTECTION**

Protecting axles and gears from wear can help to reduce maintenance costs, extend vehicle life and maximise your return on investment.

The Shell Spirax range of axle and gear oils offers proven protection, including the latest synthetic oils that deliver exceptional wear, pitting, bearing-failure and corrosion protection for heavy-duty axles, transmissions and gears operating under highly stressed conditions. This can help to reduce your costs.

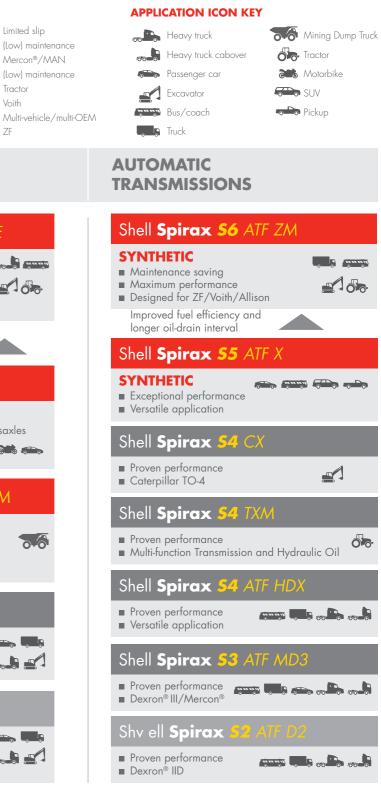
#### LONGER OIL AND COMPONENT LIFE

The longer an oil goes on protecting its components, the less maintenance your vehicle requires, so it can continue to operate without interruption, which can help reduce your maintenance costs. The Shell Spirax range contains oils that are designed to offer you value through exceptional oil life and protection that enable oildrain intervals and component life to be extended. For example, in industry-standard oxidation tests, Shell Spirax S6 AXME axle oil remains in specification after four times the normal duration of the test, which means that it can go on protecting your vehicle components.

#### **EFFICIENCY**

Shell Spirax oils are designed to keep your transmission components protected so that they go on working efficiently. For instance, Shell Spirax S6 AXME and Shell Spirax S6 GME have special frictional properties and high fluidity that reduce power loss, lower the operating temperature and offer higher mechanical efficiency. These properties can help to deliver fuel efficiency and savings.





Shell Spirax S6 GXME and Shell Spirax S6 AXME – For the longest oil life in the Shell range

Product	Benefits	Specifications and approvals
		(Full details of approvals for all products can be obtained from your Shell representative.)
Gearboxes and ma	anual transmissions	
Shell Spirax S6 GME	<ul><li>Energy efficient</li><li>Maintenance saving</li></ul>	Meets requriements of API MT-1, Eaton PS-164 rev 7, Navistar TMS 6816 Mack Truck TO-A-Plus, Volvo I-Shift 120,000 km ODI and ZF FreedomLine
Shell <b>Spirax 53</b> T	<ul> <li>Proven Performance</li> <li>Universal Tractor Oil</li> </ul>	Meets requirement of API GL4. Approved by Massey-Ferguson - M1139/M1144 Caterpillar - CAT TO-2, John Deere - JDM J27, Caterpillar - CAT TO2 ZF - TE-ML 06B, 06Q, 07B
Gearboxes and Ax	les	
Shell Spirax S4 AT	<ul> <li>Proven performance</li> <li>For use in Gearboxes &amp; Axles</li> </ul>	Meets requirements of API GL-4/5 and MT-1
Axles		
Shel <b>Spirax <i>S6</i></b> AXME	<ul> <li>Exceptional performance</li> <li>Energy efficient</li> <li>Maintenance saving</li> </ul>	Meets requirements of API GL-5 and MT-1; MIL-PRF-2105E; and SAE J2360 Approved by AGMA Standard 250.03; Arvin/Meritor O76-N, O76-E, O76-M, O76-Q and O76-R; DAF; Dana SAES-256 Rev. C; GE D50E9C; International TMS 6816; Mack GLJ and GOJ Plus; MAN 342 Type S1; Scania STO 1.0; US Steel 224; Volvo 97312; ZF TE-ML 05B, 07A, 12B, 16F, 17B, 19C and 21B
Shell Spirax S5 ATE	<ul><li>Exceptional performance</li><li>Energy efficient</li></ul>	Approved by Porsche and Ferrari for transaxles. Meets requirements of API GL4/5
Shell Spirax S5 CFD M	ax \$5 CFD M     Proven Performance     Meets requirements of SAE J 300. Approved by Caterpillar FD-1 or where CAT FD-1 (FDAO) is specified       Caterpillar FD-1     Caterpillar FD-1	
Shell Spirax S3 AX	<ul> <li>Proven performance</li> <li>Key OEM specifications</li> </ul>	Exceeds requirements of API GL-5 and MT-1; meets requirements of MIL-L-2105D; MAN 342 Type M2; and ZF-TE-ML
Shell Spirax 53 ALS	<ul> <li>Proven performance</li> <li>Limited slip</li> <li>ZF approved</li> </ul>	Approved by ZF for ZF TE-ML 05C, 12C and 16E. Meets requirements of API GL-5; limited slip; MIL-PRF-2105E (MIL-L-2105D)
Shell Spirax S2 A	Proven performance	Meets requirements of API GL-5
Automatic transmis	ssions	
Shell Spirax S6 ATF ZM	<ul> <li>Maintenance saving</li> <li>Maximum performance for ZF</li> </ul>	Meets requirements of ZF TE-ML 4D, 14E, 16N and 20E; and MAN 339 Type Z4 (ZF Ecomat 150,000 km)
Shell <b>Spirax <i>S5</i></b> ATF X	<ul><li>Exceptional performance</li><li>Versatile application</li></ul>	Approved by Aisin JWS 3309 (all applications); Allison C4; Ford Mercon® and Mercon® V; General Motors Dexron® IIIH; and JASO 1-A and 2A-02.
Shell Spirax S4 ATF HDX	<ul><li>Proven performance</li><li>Versatile application</li></ul>	Meets requirements of Ford Mercon®; General Motors Dexron® IIIG; Allison C4; Mercedes-Benz 236.9; 339 Type Z2 and 339 Type V2; Voith 55.6336 (ex, G1363); and ZF TE-ML 04D, 09, 14B, 16L and 17C
Shell Spirax S4 CX	<ul><li>Proven performance</li><li>Caterpillar TO-4</li></ul>	Meets requirements of SAE J 300. Suitable for use where the following specifications are called for: Caterpillar Tractor - TO-4
Shell <b>Spirax 54</b> TXM	<ul> <li>Proven performance</li> <li>Multi-function Transmission and Hydraulic Oil</li> </ul>	Meets requirements of API GL-4, MAT-3525 M2C-134 A-D FNHA-2-D.201.00, JDM-J20C, M1143 M1145, WB 101 ZF TE-ML 03E, 05F, 06D, 06K, 17E. Spirax Also recommended for use in Case equipment where fluids meeting MS 1204, 1206, 1207, 1209 or 1210 are specified. Spirax S4 TXM can be used when a SAE J 306 85W grade is recommended.
Shell Spirax S3 ATF MD3	Proven performance	Meets requirements of General Motors Dexron® III and Ford Mercon®

# FULL PRODUCT AND SERVICE PORTFOLIO

Shell Lubricants is the number one lubricants supplier (Kline & Company, 2008) and has a 60-year history of innovation. It constantly invests to develop better lubrication solutions, including advanced synthetic technologies such as:

- Shell Rimula R6 LM synthetic heavy-duty engine oil.
- Shell Spirax S6 AXME synthetic axle oil.

In addition, Shell provides the world-leading Shell LubeAnalyst oil condition monitoring service, which is designed to help improve your business performance.

Whatever your needs or application, Shell can provide a full range of oils and greases, including synthetic, high-performance products and additional services.



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