RETHINK

LUBRICANTS.

CASE IH
AGRICULTURE

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Introducing the most advanced portfolio of lubricants engineered for peak performance. And your success.

The new Genuine Lubricants Portfolio is the only line of fluids you need to support your Case IH machinery.

LEVERAGING INDUSTRY LEADING BRANDS

Case IH has strong brand awareness, recognised in the Agricultural industry for quality and reliability.

For many years, No.1 Engine Oil™ and Hy-Tran® have provided excellent performance and protection that meets the demands of your machine and your expectations.

To ensure maximum machine uptime and superior quality, CNH Industrial has invested close to $100M USD in research and development to date.

Designed to meet the specific needs of our machines, the portfolio has undertaken rigorous testing in the most demanding environments, including:

- 200+ supplier bench tests
- 100+ CNH Industrial screening and rig tests
- 88 vehicle tests over more than five years

NOTABLE PORTFOLIO UPDATES

Improved Formulation

- No.1 Engine Oil - Incorporates latest engine oil technologies
- Hy-Tran Premium - Zinc Free Formulation

Engine Oil Label Design

- Silver – Synthetic
- White – Conventional

Having a deep-seated knowledge of operations and lubrication needs, our engineers have developed premium formulations, built on the very latest technology that adapts chemically and physically to changing conditions within the engine.

NEW GENUINE LUBRICANTS PORTFOLIO: DESIGNED FOR SUCCESS

The new Genuine Lubricants Portfolio is comprehensive, and offers the latest Original Equipment Manufacturer (OEM) engine oils, next generation hydraulic transmission oil, hydraulic oil, coolant, grease and specialty fluids.

Only the OEM products available through this portfolio are engineering approved and recommended for Case IH equipment.

Here's an overview of our new portfolio to get you, where everyone needs to be: successful.

Tested, vetted and ready to revolutionise the industry.

Case IH has undertaken the most demanding and rigorous testing of our products to push the limits of performance under pressure.

Working closely with our industry leading blending partner, we've developed an entire lubricants portfolio engineered specifically for Case IH equipment. No matter the job, this range is up to it.

While these products are cross compatible, only our OEM lubricants are:

- Built specifically for Case IH equipment
- Tested and fully approved to meet or exceed API and CNH Industrial Material Standards (MAT)
- Approved for Case IH equipment limited warranties

The full suite of options in this new portfolio include industry-leading advancements in engine oils, hydraulic transmission oil, coolant, grease and specialty fluids.

THE NEW GENUINE LUBRICANTS PORTFOLIO

A Lineup of Leadership

ENGINE OIL

More details see pages 11 - 13

- Conventional and Synthetic
- Available in 5L, 20L, 209L, 1000L
- MAT Spec 3571, 3572, 3622

HYDRAULIC TRANSMISSION OIL

More details see pages 14 - 19

- Zinc Free and Zinc Based Formulations
- Available in 5L, 20L, 209L, 1000L
- MAT Spec approved

GREASE

More details see page 24

- Multi-Purpose
- Available in 0.45kg, 18kg
- MAT Spec 3555-A

COOLANT

More details see pages 20 - 21

- Premix 50/50
- Available in 5L, 20L, 205L
- MAT Spec 3724

GEAR OIL SPECIALTY

More details see pages 22 - 23

- Hypoid, Synthetic Hypoid, Premium Transaxle
- Available in 5L, 20L, 209L
- MAT Spec 3516-(A-C), 3515-B

See complete portfolio product listing on pages 28 - 29

QUALITY THAT YOU EXPECT

In keeping with a well-known brand legacy, this new lubricants portfolio received an updated, modern look to represent the advanced formulations inside.

OLD
No.1 Engine Oil

NEW
No.1 Engine Oil

OLD
Hy-Tran Ultraction

NEW
Hy-Tran Premium

OLD
Actifull OT Extend-Life Coolant

NEW
Extend-Life OAT Coolant

INDUSTRY STANDARDS

WHY CK4 VS. CJ4?

The primary benefit of CK4 is fuel efficiency, helping to reduce CO2 emissions.

CK-4 vs CJ-4: Better Performance. Better Protection.

For more than 70 years, the American Petroleum Institute (API) has developed engine oil standards to protect new and current engine technologies, meet government regulations and ensure that tests are available to measure engine oil performance.

In 2016 the API set new specifications - called CK-4. These standards focus on effectively sustaining emission control system durability. Additionally, API CK-4 standards are designed to protect against oil oxidation, viscosity loss due to shear, and oil aeration.

Exceeding Industry Standards.

New technologies that run at hotter temperatures and higher pressures, along with fuel economy requirements and stricter greenhouse gas standards, require higher performance engine oils. Genuine Case IH engine oils have become CNH Industrial engineering-approved after passing a series of internal, stringent tests. The internal technical standards we apply in testing go above and beyond the minimum API requirements - demanding more from our products.

As a result, MAT specifications are used to test and approve all lubricants to ensure they exceed industry standards.

Our engine oil MAT specifications exceed the API CK-4 requirements - holding Genuine Case IH engine oils to a higher standard.

NO.1 ENGINE OIL™

Formulated to meet the stringent demands of today's Tier 4 engines by utilising Low-SAPS (Sulfated Ash, Phosphorus and Sulfur) additive technology that helps protect exhaust catalysts and diesel particulate filters (DPF) on the latest low emission machines.

As a safeguard against premature wear, our genuine No.1 Engine Oils have been specifically engineered to new, next-generation MAT 3571, 3572, 3622 specifications and extensively tested to provide maximum protection in oxidation and aeration control, shear stability and proven performance life for the heavy-duty, high-temperature operation of Construction, Agricultural, and other off-road diesel-powered equipment.

Key Takeaways:

- No.1 Engine Oils are the only lubricants bench tested, field tested and approved by CNH Industrial engineers in severe lab conditions, and under load in extreme field testing.
- Only oil approved for extended drain intervals (20% longer) for Case IH equipment.
  - 10W-40 600 hours; (15W-40) 500 hours*
- Tiered Label Design
  - Silver – Synthetic
  - White – Conventional

** Please refer to your operator's manual on the optimal oil drain interval for your equipment.*

MAT NUMBERS

3571, 3572, 3622

API RATING

CK-4 CI-4

TYPICAL PHYSICAL CHARACTERISTICS

Properties	Method	10W-40 (CK-4)	15W-40 (CK-4)	15W-40 (CI-4)
Kinematic Viscosity @40°C mm²/s	ASTM D445	102	115	109
Kinematic Viscosity @100°C mm²/s	ASTM D445	14.8	15.3	14.7
Dynamic Viscosity @-250°C mPa s	ASTM D5293	6,500	6,200	6700
Viscosity Index	ASTM D2270	154	139	139
Total Base Number mg KOH/g	ASTM D2896	10	10	10.5
Sulfated Ash %	ASTM D874	1	1	1
Density @15°C kg/l	ASTM D4052	0.862	0.876	0.888
Flash Point (COC) °C	ASTM D92	237	236	230
Pour Point °C	ASTM D97	-42	-35	-36

PRODUCT OFFERING:

Description	Size (Litres)	Part No.
No. 1 Engine Oil™ SAE 10W-40 API CK-4 Synthetic MAT 3571	5	73394542
	20	73394624
	209	73394541
No. 1 Engine Oil™ SAE 15W-40 API CK-4 MAT 3572	5	73394619
	20	73394620
	209	73394536
	1000	73394537
No. 1 Engine Oil™ Super SAE 15W-40 API CI-4 MAT 3622	5	73394622
	20	73394623
	209	73394533
	1000	73394534

HYDRAULIC TRANSMISSION OIL - PREMIUM

Case IH first developed Hy-Tran oil for its own equipment in 1964, and it is now considered an industry standard. Since then, it has been tested and upgraded several times to improve performance.

What are the functions of hydraulic transmission oils?

They must:

- Transmit energy
- Control corrosion
- Transfer heat
- Control friction
- Control wear
- Control contamination

What are the properties of hydraulic transmission oils?

- Anti-wear extreme-pressure additives
- Detergents
- High oxidation stability
- Reduced noise and vibration tendency
- Friction modifier
- Metal deactivator
- Rust and corrosion inhibitors
- Water tolerance
- Low pour point
- Heat tolerance
- Compatible with all types of seals
- Performance over time

What makes Hy-Tran® Premium superior to competitive oils?

- Zinc-free technology for superior corrosion protection and less toxicity to the environment
- It satisfies the exact performance specifications of the multiple functions of a machine system
- Comparison tests have shown the actual performance difference
- Best in class torque transfer for smoother operations and getting more productive hours from your equipment
- Improved shiftability for a lower noise for operational agility, operator's comfort and less equipment strain
- Best in class shear stability offers less frequent oil top ups
- Best in class water tolerance

HY-TRAN® PREMIUM

Engineered specifically for Case IH equipment, Hy-Tran® Premium utilises the latest zinc-free, anti-wear additives and is formulated to provide premium performance and protection for all generations of equipment – from legacy to CVTs.

As technology continues to advance, Case IH stays ahead of the curve with newly improved Hy-Tran Premium Hydraulic Transmission Oil designed to keep tractor transmissions, axles and hydraulic systems free of deposits while inhibiting wear, corrosion, sludge and foaming.

Key Takeaways:

- Unrivalled Water Tolerance: Unique ability to hold up to 1% of its volume in water helps prevent rust, sticky valves, flow restrictions and pump cavitation.
- Improved Superior Oxidation Stability: Less oxidation under heat prevents metal deposits and corrosion, extends component life and reduces downtime.
- Superior Shear Stability: Provides advanced wear protection for transmissions and implement pumps by maintaining its viscosity when subjected to high temperatures and extreme pressure.
- Superior Wear Protection: Less wear for longer component life.

MAT SPEC

APPROVED

WATER TOLERANCE

UP TO 1%

TYPICAL PHYSICAL CHARACTERISTICS

Properties	Method	HY-TRAN® PREMIUM
Viscosity @100°C mm²/s	ASTM D445	9.4
Brookfield Viscosity @-20°C mPa s	ASTM D2983	4,300
Foaming Tendency ml (Seq I/II/III)	ASTM D892	0/10/0
Water Tolerance 1.0%	-	Pass
KRL Shear 20 hours	CEC L-45-T-93	13%

PRODUCT OFFERING:

Description	Size (Litres)	Part No.
Hy-Tran® Hydraulic Transmission Oil - Premium	5	**73394639**
	20	**73394634**
	209	**73394521**
	1000	**73394522**

UNIVERSAL TRANSMISSION OIL - PREMIUM

Premium Hydraulic Transmission Oil designed for use in transmissions, hydraulic systems, oil immersed breaks and other ancillary systems fitted to agricultural tractors and offroad equipment. Suitable for use in most modern equipment, Universal Transmission Oil - Premium our latest improvement to the Multi-G formula.

Key Takeaways:

- Enhanced Protection: Anti-oxidation, shear-stability, anti-wear, anti-corrosion and anti-foam characteristics result from the use of the additive technology leading to greater reliability and reduced downtime thus minimising cost and maximising utilisation.
- Operator Comfort: The low temperature fluidity of Universal Transmission Oil - Premium results in responsive hydraulic performance and smooth gearshift performance, from cold starts to maximum operating temperatures. Friction modifying additives help create smoother operation of oil immersed brakes.
- Hydraulic Systems: Universal Transmission Oil - Premium is ideally suited for hydraulic systems of tractors and ancillary equipment. Universal Transmission Oil - Premium is formulated using specially selected additives and high quality base oils to provide good low temperature fluidity and wear protection.

TYPICAL PHYSICAL CHARACTERISTICS

Properties	Method	UNIVERSAL TRANSMISSION OIL - PREMIUM
SAE Viscosity Grade	SAE J 300	10W-30
Kinematic Viscosity @40°C mm2/s	ISO 3104	60
Dynamic Viscosity @100°C mm2/s	ISO 3104	9.4
Viscosity Index	ISO 2909	138
Density @15°C kg/m3	ISO 12185	882
Flash Point (COC) °C	ISO 2592	220
Pour Point °C	ISO 3016	-42

PRODUCT OFFERING:

Description	Size (Litres)	Part No.
Universal Transmission Oil - Premium SAE 10W-30	5	73323224
	20	73394644
	209	73394527
	1000	73323225


CASE IH
MAGNUM
CASE IH
AGRICULTURE
CASE
UNIVERSAL
TRANSMISSION OIL
PREMIUM
MAT 3525
5L e

EXTENDED-LIFE OAT COOLANT

This long service life coolant/antifreeze is based exclusively on a synergistic combination of Organic Additive Technology (OAT), providing excellent overall corrosion protection.

Suitable for all heavy-/light-duty diesel, natural gas and gasoline engines, this formulation is approved by our engineers under the new next-generation MAT 3724 specifications and provides superior high temperature protection in extreme conditions. It protects cooling system metals including brass, copper, solder, steel and cast iron against rust, corrosion and deterioration, and also fights against deposit build up and cylinder liner cavitation.

Key Takeaways:

- Provides up to 4,000 hours/4 years' service life in heavy equipment applications without the need of a booster or extender.
- Required for Case IH FPT Tier 4 engines*.
- Fully backwards compatible and the only coolant able to protect all generations of equipment.
- Does not contain nitrites, which do not react with water impurities, but contain organic additives which allow for better cooling properties.
- Premix is blended 50/50 and contains reverse osmosis treated, demineralised water.

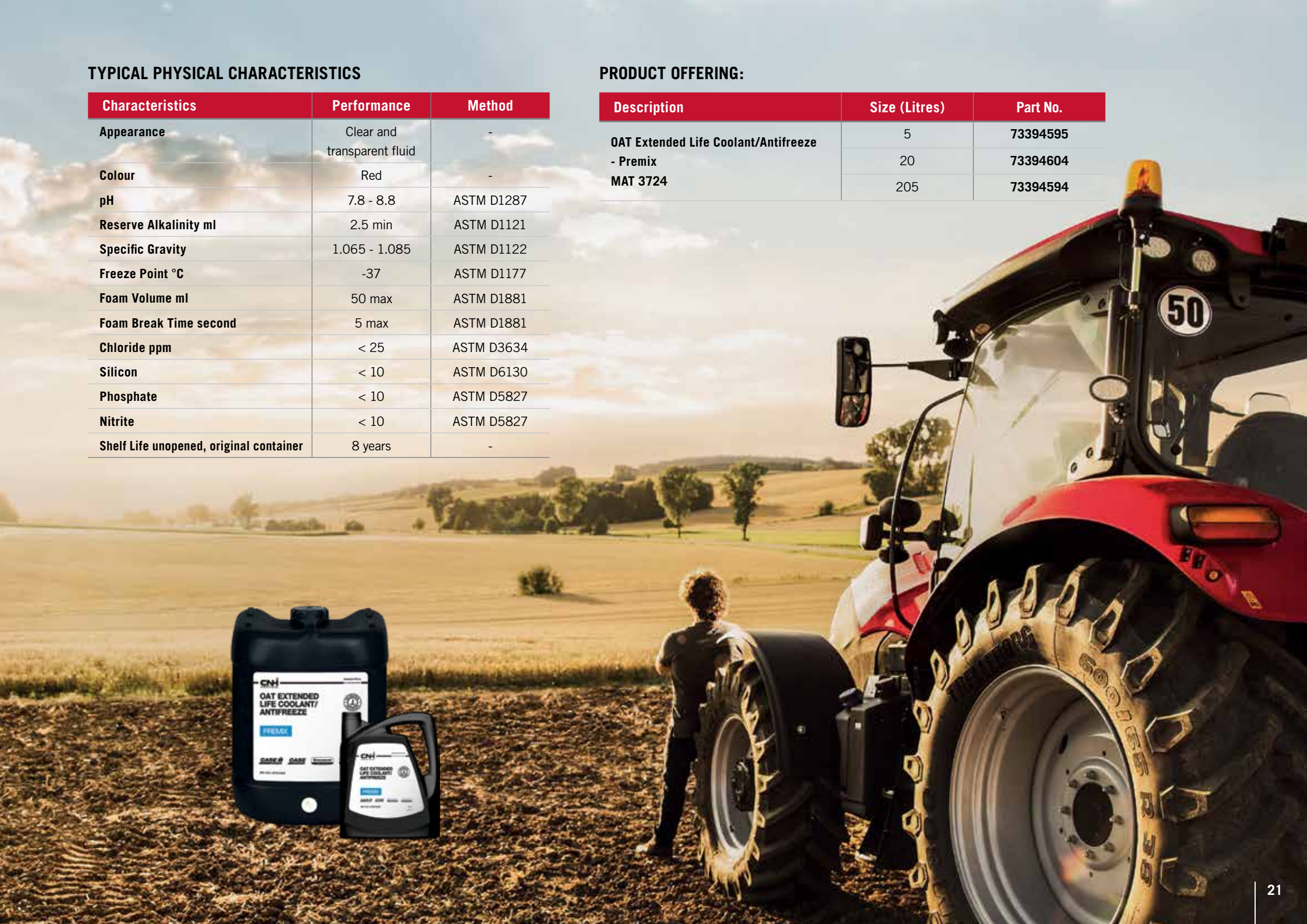
*Always consult operator's manual for the exact fluid recommendation.

TYPICAL PHYSICAL CHARACTERISTICS

Characteristics	Performance	Method
Appearance	Clear and transparent fluid	-
Colour	Red	-
pH	7.8 - 8.8	ASTM D1287
Reserve Alkalinity ml	2.5 min	ASTM D1121
Specific Gravity	1.065 - 1.085	ASTM D1122
Freeze Point °C	-37	ASTM D1177
Foam Volume ml	50 max	ASTM D1881
Foam Break Time second	5 max	ASTM D1881
Chloride ppm	< 25	ASTM D3634
Silicon	< 10	ASTM D6130
Phosphate	< 10	ASTM D5827
Nitrite	< 10	ASTM D5827
Shelf Life unopened, original container	8 years	-

PRODUCT OFFERING:

Description	Size (Litres)	Part No.
OAT Extended Life Coolant/Antifreeze - Premix MAT 3724	5	**73394595**
	20	**73394604**
	205	**73394594**



HYPOID GEAR OIL AND TRANSAXLE OIL

Offers better overall protection for differentials and gear sets to increase performance under extreme pressures and extend equipment lifetime, while decreasing maintenance costs.

These new Hypoid Gear Oil formulas were designed to help prevent deposit formation and maximise oil drain intervals without compromising protection.

Hypoid Gear Oil is available in three (3) different SAE viscosity grades:

- Conventional (SAE 80W-90, 85W-140)
- Synthetic (SAE 75W-90)

Transaxle Oil is available in two (2) different viscosity grades:

- Synthetic (SAE 20W-40, 80W-140)

Key Takeaways:

- High load capability, anti-wear and extreme pressure properties extends equipment life and reduces maintenance costs under severe conditions.
- Protection from premature wear against rust and corrosion in wet or humid environments.
- Thermal and oxidation stability extends seal life and increases service life of equipment and lubricant.

MAT NUMBER

3516-(A-C)
3515-B

CRC L-37 WEAR RESISTANCE OF GREEN GEARS

PRODUCT OFFERING:

Description	Size (L)	Part No.
Hypoid Gear Oil Extreme Pressure SAE 80W-90 MAT 3516-A	20	73394648
Hypoid Gear Oil Extreme Pressure SAE 85W-140 MAT 3516-B	5	73394574
	20	73394575
Synthetic Hypoid Gear Oil Extreme Pressure SAE 75W-90 MAT 3516-C	20	73323226
Premium Transaxle Oil SAE 80W-140 MAT 3515-B	20	73394654

MULTI-PURPOSE GREASE

Case IH grease is formulated with numerous additives to enhance and maintain consistent performance against high temperatures and extreme pressure, featuring:

- Antioxidants
- Anti-wear
- Extreme pressure additives
- Friction modifiers
- Dyes
- Anti-weld and solid

The MAT code on your grease label is what differentiates it from the competition. It certifies that our grease is tested and approved by CNH Industrial engineers to meet the demands of Case IH machines.

Key Takeaways:

- Stays in contact with the moving surfaces
- Minimal dripping, leaking and splattering
- Seals out contaminants
- Decreases frequency of lubrication
- Noise reduction/dampening

PRODUCT OFFERING:

Description	Thickener	Size/Part No.
Multi-Purpose 251H EP Grease Anti-Wear / NLGI 2 MAT 3555-A	Lithium	**0.45 kg - 73394600**
		18 kg - 73394601


CASE IH
125


CASE IH
130

NEXPRO by CNH INDUSTRIAL

NEXPRO is a specifically designed product line for owners of older machinery.

NEXPRO TURBO ENGINE OIL

A high-performance diesel engine oil, suiting turbo charged and naturally aspirated heavy-duty diesel engines. Suitable for most off-highway and on-highway applications, with approvals that either meet and/or exceed a wide range of manufacturers.

Suitable for most:

- Turbo charged and naturally aspirated diesel engines
- Off-highway and On-highway heavy duty diesel engines
- Suitable for use with bio-diesel
- High and ultra-low sulphur diesel fuels
- Engines fitted with Selective Catalytic Reduction (SCR)
- Engines fitted with Exhaust Gas Recirculation (EGR)

NEXPRO HYDRAULIC OIL

Is recommended for use in most hydraulic systems using vane, piston or gear pumps, airline lubricators, vacuum pumps, lightly loaded gear sets and bearings (such as headstocks & windmill gears) as well as hydraulic hoists and jacks.

Suitable for most:

- Agricultural machinery
- Construction equipment
- Commercial vehicles
- Forklifts and most hydraulic systems

Benefits include:

- Superior anti-corrosive properties to protect against water contamination
- Excellent anti-foam properties to significantly reduce cavitation and premature oxidation

NEXPRO UTTO

NEXPRO 10W-30 Universal Tractor Transmission Oil (UTTO) is a combined transmission and hydraulic oil, designed to meet the requirements of older tractor and construction transmissions and hydraulics.

Suitable for:

- Agricultural machinery
- Construction equipment
- Backwards compatible to older tractor transmissions, hydraulic systems and wet brakes

Benefits include:

- Superior gear wear protection and oxidation
- Anti-squawk additive package that ensures the correct frictional properties and effective operation of wet brakes

NEXPRO offers an alternative to Genuine Parts in order to support your machinery throughout its entire lifecycle and for specific applications.

NEXPRO HD ENGINE COOLANT PREMIX (OAT)

NEXPRO HD Engine Coolant Premix is a universal, long-life engine coolant/antifreeze designed for use in Agricultural machinery, Construction equipment and on-highway vehicles. This is a Ready-to use (RTU) product, thereby not requiring any further dilution.

NEXPRO HD Engine Coolant Premix is formulated to provide:

- Extended life; 4 years/100,000 kms/12,000 hours
- Compatibility with other OAT and conventional coolants

PRODUCT OFFERING:

Description	Size (L)	Part No.
NEXPRO UTTO SAE 10W-30 API GL-4	20	73394725
	209	73394726
NEXPRO TURBO ENGINE OIL SAE 15W-40 API CI-4	20	73394728
	209	73394727
NEXPRO HYDRAULIC OIL 68 ISO 11158 HM Fluid DIN 51524-2 HLP	20	73394730
	1000	73394731
NEXPRO HYDRAULIC OIL 46 ISO 11158 HM Fluid DIN 51524-2 HLP	20	73394729
NEXPRO HD COOLANT ASTM D3306, D6210	5	73394732
	20	73394733

Please note: NEXPRO Range is not approved for use in Case IH equipment during the CNH Industrial Warranty period.

PRODUCT OFFERING

ENGINE OIL

Description	Size (L)	Part No.	Sub From
No. 1 Engine Oil™ SAE 10W-40 API CK-4 Synthetic MAT 3571	5	**73394542**	73322551
	20	**73394624**	73322359
	209	**73394541**	73322553, 73322555
No. 1 Engine Oil™ SAE 15-W40 API CK-4 MAT 3572	5	**73394619**	73322538
	20	**73394620**	73322539
	209	**73394536**	73322540
	1000	**73394537**	73322541
No. 1 Engine Oil™ Super SAE 15W-40 API CI-4 MAT 3622	5	**73394622**	365557A1, E175325
	20	**73394623**	365558A1, E175326
	209	**73394533**	365559A1, E175328
	1000	**73394534**	365560A1, 87434356

HYDRAULIC TRANSMISSION OIL

Description	Size (L)	Part No.	Sub From
Hy-Tran® Hydraulic Transmission Oil - Premium	5	**73394639**	73322407
	20	**73394634**	73322408
	209	**73394521**	73322409
	1000	**73394522**	73322410

UNIVERSAL TRANSMISSION OIL

Description	Size (L)	Part No.	Sub From
Universal Transmission Oil - Premium SAE 10W-30	5	**73323224**	87434357
	20	**73394644**	87434358
	209	**73394527**	87434359
	1000	**73323225**	87434360

COOLANT

Description	Size (L)	Part No.	Sub From
OAT Extended Life Coolant/Antifreeze - Premix MAT 3724	5	**73394595**	73322484
	20	**73394604**	73322485
	205	**73394594**	73322486

TRANSMISSION/GEAR OIL

Description	Size (L)	Part No.	Sub From
Hypoid Gear Oil Extreme Pressure SAE 80W-90 MAT 3516-A	20	**73394648**	365594A1, 73322615
Hypoid Gear Oil Extreme Pressure SAE 85W-140 MAT 3516-B	5	**73394574**	365597A1
	20	**73394575**	365598A1
Premium Transaxle Oil SAE 80W-140 MAT 3515-B	20	**73394654**	365602A1, 73323076
Premium Transaxle Oil SAE 20W-40 MAT 3515-A	20	**73323227**	73322616
Synthetic Hypoid Gear Oil Extreme Pressure SAE 75W-90 MAT 3516-C	20	**73323226**	73322986
Shell Spirax S4 CX 10W	209	**73323229**	365574A1
Shell Spirax S3 ATF MD3	1	**73323230**	-

HYDRAULIC OIL

Description	Size (L)	Part No.	Sub From
Premium Hydraulic Oil HM46 Anti-Wear MAT 3529-B	20	**73394579**	116799A2
Premium Hydraulic Oil HM68 Anti-Wear MAT 3529-C	20	**73394580**	365590A1, 365592A1
Premium Hydraulic Oil HV46 Multi-Grade Anti-Wear MAT 3530-B	20	**73394626**	73322652, 73322653
Premium Hydraulic Oil HV68 Multi-Grade Anti-Wear MAT 3530-C	20	**73394627**	365586A1
	209	**73394588**	365587A1
TCH™ Fluid	20	**73394658**	365582A1

NEXPRO

Description	Size (L)	Part No.	Sub From
NEXPRO UTTO SAE 10W-30 API GL-4	20	**73394725**	NP73322989, NP73322988
	209	**73394726**	NP73322990, NP73322991
NEXPRO TURBO ENGINE OIL SAE 15W-40 API CI-4	20	**73394728**	NP74525RY1, NP74525M28
	209	**73394727**	NP745255Z1, NP745259J1
NEXPRO HYDRAULIC OIL 68 ISO 11158 HM Fluid DIN 51524-2 HLP	20	**73394730**	NP76498RY1
	1000	**73394731**	NP764989J1, NP764985Z1
NEXPRO HYDRAULIC OIL 46 ISO 11158 HM Fluid DIN 51524-2 HLP	20	**73394729**	NP76498RY1, NP770995Z1, NP770999J1
NEXPRO HD COOLANT ASTM D3306, D6210	5	**73394732**	NP77271M28
	20	**73394733**	NP77271RY1, NP772715Z1, NP772719I1

SPECIALTY OILS

Description	Size (L)	Part No.	Sub From
Universal Tractor Oil 15W-40	20	**73394613**	365578A1
Low Temp Universal Tractor Oil 10W-40	20	**73394614**	B510228SP
Hydraulic Actuator Fluid LHM	1	**73394558**	73322105
Limited Slip Additive	0.946	**73323231**	87299132

GREASE

Description	Size (KG)	Part No.	Sub From
Multi-Purpose 251H EP Grease Anti-Wear / NLGI 2 MAT 3555-A Lithium	0.45	**73394600**	365605A1, 365606A1, 365608A1
	18	**73394601**	365607A1

FLUID ANALYSIS

Fluid analysis is a predictive maintenance tool that provides a picture of both the fluid and the internal condition of a component or system without the need for disassembly.

Fluid analysis provides you the opportunity to:

- **Extend oil drain intervals**
  Monitoring the condition of the oil optimises drain intervals so that you get the most out of the fluid you're paying for.

- **Extend equipment life**
  Monitoring system cleanliness and filtration efficiency allows you to keep your equipment longer and significantly reduce replacement costs.

- **Identify minor problems**
  State-of-the-art fluid analysis identifies dirt, wear particles, fuel dilution and coolant.

- **Maximise asset reliability**
  Testing and analysis helps to prevent any downtime.

- **Provide assurances to future owners**
  Analysis results provide valuable sampling histories for any prospective buyer.

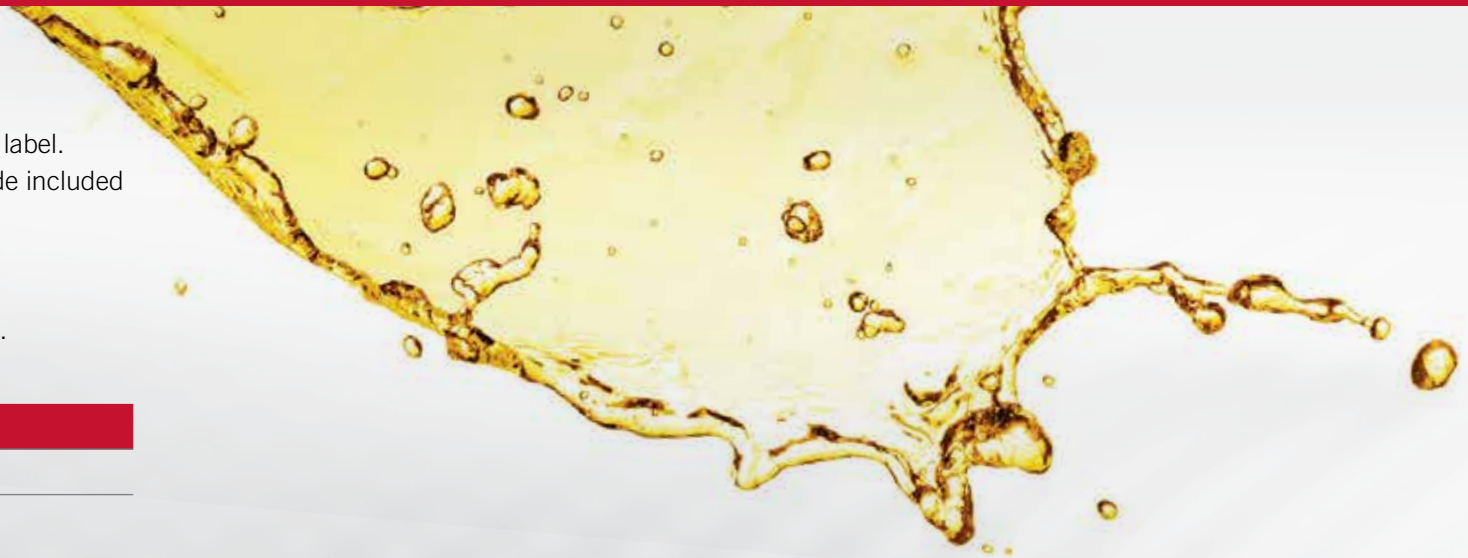
LUBE LOOKUP

HANDY HINT:

Use Lube Lookup for all makes and models!

Lube Lookup is an online resource to assist in identifying the lubricants and volumes required for Case IH equipment.

LUBRICANT TEST KIT



The test kit contains a pre-paid mailer, tubing, sample bottle, sample pot, instructions and sample label. For best practice sampling techniques, see the guide included in the test kit.

Available through your local Case IH Dealer.
Order the Lubricant Test Kit at your local dealership.

Description	Part No.
Oil Test Kit	73323036

GLOSSARY

Common Lubricant Terminology

Additive A chemical added in small quantities to lubricant to impart or improve certain properties

Air Entrainment The incorporation of air in the form of bubbles in the bulk liquid

Aniline Point Lowest temperature at which a specified quantity of aniline is dissolved in the fluid; an empirical measure of the solvent power of a hydrocarbon

Antioxidant Additive which increases oxidation resistance

Antiwear Agent Additive which minimises wear caused by metal-to-metal contact by forming a film on metal

API (American Petroleum Institute) Trade association of petroleum producers, refiners, marketers, and transporters

API Service Categories Gasoline (S) and Diesel (C) engine oil quality levels established jointly by API, SAE, and ASTM

Ash Content Noncombustible residue of a lubricating oil or fuel

ASTM (American Society for Testing and Materials) An organisation which sets standard test methods for the analysis of lubricants

Base Oils Inert diluent of additives which provides the bulk lubrication; the majority of the lubricant formulation

Brookfield Viscosity Apparent viscosity often measured at low temperatures

Cold Cranking Simulator (CCS) Measures viscosity of crank oils at low temperature to determine SAE winter grade

Conventional Coolant Coolant that relies on inorganic inhibitors such as silicates, nitrites, and phosphates for corrosion and cavitation protection

Conventional Oil: A highly refined petroleum distillate derived from crude oil

Corrosion Chemical attack on a metal by contaminants in a lubricant or coolant

Corrosion Inhibitor Additive for protecting metal surfaces against chemical attack by water or other contaminants

Demulsibility Ability of an oil to readily separate from water

Detergent Additive which chemically neutralises acidic contaminants and helps clean the surface of metals

Dispersant Additive which reduces the size of accumulated sludge, varnish, and other engine deposit formations

Dropping Point The temperature at which a grease passes from a semisolid to a liquid
Emulsibility Ability of an oil to mix with water

GLOSSARY

Common Lubricant Terminology

Engine Deposits Accumulations of sludge, varnish, and carbon residue due to blow-by of unburned fuel or from breakdown of the engine oil

EP Additive Additive which prevents sliding metal surfaces from seizing under conditions of extreme pressure (EP)

Fire Point Minimum temperature at which vapor is produced at a sufficient rate to sustain combustion

Flash Point Minimum temperature at which vapor is produced at a sufficient rate to yield momentary combustion

Foaming Occurrence of a frothy mixture of air and liquid that can cause sluggish hydraulic operation or cavitation

Foam Inhibitor An additive which causes foam to dissipate more rapidly

Friction Resistance to the motion of one surface relative to another

Grease Mixture of a liquid base oil and a thickener (typically soap-based) which form a semisolid lubricant

ILSAC International Lubricant Standardization & Approval Committee: composed of Japanese and U.S. automobile manufacturers, initiates and promotes the development of passenger vehicle engine oil performance specifications

ISO International Standards Organisation

ISO Viscosity Classification System Industrial lubricants viscosity grade (e.g. 32, 46, 68, 100)

Kinematic Viscosity Common measurement of viscosity using capillary tubes

Molybdenum Disulfide A dry-film lubricant sometimes added to oil for additional lubrication

Multigrade Oil Engine oil which meets the requirements of more than one SAE viscosity grade classification; performs over a wider temperature range than a single grade oil

Naphthenic Oil Hydrocarbon with ring structures; more reactive than paraffinic oils but more soluble with additives and better low temperature properties

NLGI (National Lubricating Grease Institute) Trade association specialising in grease NLGI Consistency Grades Rating the consistency of grease (e.g. NLGI-2)

OAT Organic Acid Technology. An OAT coolant relies on inhibitors such as organic acid salts for corrosion and cavitation protection.

OEM Original equipment manufacturer

Oxidation A form of chemical deterioration of the base oil of a lubricant

PAO Polyalphaolefin, a common synthetic base stock

Paraffinic Oil Hydrocarbon with saturated carbon chains; relatively nonreactive with excellent oxidation stability in contrast to naphthenic oils

Penetration (grease) Measure of the consistency of a grease

Pour Point The lowest temperature at which a fluid will flow; common measure of a fluid's low temperature performance

Pour Point Depressant Additive used to lower the pour point of a lubricant

PPM Parts per million (1 ppm = 0.0001%)

R&O Oil Oils with only rust and oxidation inhibiting additives

Rust Inhibitor Additive for protecting iron and steel components from rusting caused by water contamination

SAE (Society of Automotive Engineers) Organisation responsible for the establishment of many U.S. automotive standards, including the viscosity classifications of engine oils and gear oils

SAE Viscosity Grades Viscosity grades for oil set by SAE; suffix "W" (e.g., SAE 20W) denotes suitability for winter use

SCA Supplemental Coolant Additives

Sulfated Ash The ash content of fresh, compounded lubricating oil; Indicates level of metallic additives in the oil

Synthetic Base Oil A lubricating fluid made with synthetic base stock featuring higher lubrication performance than a conventional lubricant

TAN Total acid number. Measurement of the acid-like behavior of an oil. TAN increase is used to evaluate the oxidative deterioration of a lubricant. Caution: some modern oils contain additives which are recognized as acidic by ASTM D664 and not an indication of degradation. Because of this, TAN is not necessarily a meaningful comparison between virgin fluids

TBN Total base number. Measurement of the base-like behavior of an oil. A value often used to measure an engine oil's ability to neutralise acidic byproducts of the combustion process. TBN retention demonstrates an engine oil's longevity over the course of a drain interval.
Caution: with ultra-low sulfur diesel (ULSD), sulfuric/sulfurous acid is less likely to form in combustion of diesel fuel so TBN values are less important with CJ-4/CK-4 oils than CI-4 and previous

Viscosity Measurement A measure of a fluid's resistance to flow ("thickness")

Viscosity Index Relates the dependency of viscosity on temperature of an oil

Viscosity Index Improver Additive that reduces the tendency of an oil to change viscosity with temperature

Wear The rubbing away of a metal surface due to mechanical action

ZDDP (Zinc Dialkyl Dithiophosphate) Widely used as an antiwear agent in motor

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