

TRANSMISSION FLUID SERIES

ATF / CVTF / Wet DCTF

OPERATION AND HANDLING INSTRUCTIONS

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MOTTA-ATF-OHI-EN	REV.02	2026-09-13	Issued for use

Use with the current product TDS, SDS and equipment service instructions. Issued by MOTTA Lubricants. The current revision of this document is published at motta-lube.com/documents/ — if your copy differs, that list governs.

1 Scope

This document applies to the selection, filling, in-service monitoring and fluid change of the MOTTA transmission fluid series: ATF, CVTF and Wet DCTF. For use only by trained personnel on vehicles or equipment whose condition has been confirmed.

- ATF: automatic transmissions with a torque converter, where the corresponding ATF type is recommended.
- CVTF: belt and chain continuously variable transmissions, where confirmed by the vehicle manufacturer.
- Wet DCTF: wet dual-clutch transmissions, where this fluid type is recommended.

Not covered: dry dual-clutch transmissions, whose gear sections use a manual-transmission fluid — a wet DCT fluid must not be carried over to them. Also not covered: manual gearboxes, axles, engine crankcases, and off-highway powershift equipment — TO-4 fluids are covered by their own handbook, MOTTA-TO4-OHI.

Note: the vehicle/equipment manufacturer's service handbook, the grade-specific TDS, the SDS and local regulations take precedence; where requirements conflict, the stricter safety condition applies.

- User responsibility: confirm the transmission type (torque-converter automatic, CVT, wet dual-clutch or powershift) and that the product matches.
- Operator responsibility: record the fluid-change date, mileage/running hours and fill quantity.
- Technical boundary: this document does not replace the vehicle/equipment manufacturer's service handbook or a qualified technician's judgement.

MOTTA products covered by this handbook

Product	Grades	Standards and performance levels	Pack sizes
MOTTA ATF Series	ATF 220, 6AT, 8HP, 9/10HP	DEXRON VI · MERCON LV · ZF 8HP	1L / 200L
MOTTA CVTF	CVT Fluid	JASO 1A / NS-2 / NS-3	1L / 200L
MOTTA WET-DCTF	Wet DCT Fluid	MB 236.21	1L / 200L

Grades, standards and pack sizes as published on each product's technical data sheet at motta-lube.com/products/. Where a data sheet and this table differ, the data sheet governs.

Designations in this table are the specifications each fluid is formulated toward, as stated on its data sheet. No OEM approval or licence is claimed unless separately documented. Use a fluid only where the vehicle or equipment manufacturer recommends that fluid type.

2 Selection and pre-use inspection (critical: mechanism match)

Important: ATF, CVT fluid and wet dual-clutch fluid (Wet DCTF) are each formulated for the friction behaviour of one mechanism — torque-converter lock-up, CVT belt or chain grip, or wet dual-clutch engagement. They are not interchangeable. Using the wrong fluid does not merely underperform; it causes shudder, slip or clutch damage.

- Confirm the transmission type: torque-converter automatic (AT), continuously variable (CVT), wet dual-clutch (DCT) or powershift.
- Verify the specific product number or equivalent standard specified by the vehicle/equipment manufacturer, which takes precedence over any judgement based on viscosity or appearance.
- Product: verify the full product name, the transmission-type marking, batch number and that the packaging seal is intact.

3 Filling and Level Management

- Check the level by the method the manufacturer specifies — some require idling at operating temperature, others a cold engine-off condition.
- Add in small increments and re-check to avoid overfilling; some transmissions must be checked in a specific gear position (e.g. P or N).
- Sealed transmissions with no dipstick must be filled through the specified fill port and level plug as the manufacturer instructs; never fill by estimation.
- After filling, road-test or idle as specified, then re-check the level, fluid temperature and for leaks.

4 Start-Up and Early Running

- After a cold start, drive gently or run until fluid temperature rises before normal gear changes or loading.
- On first use after a fluid change, watch for shift shudder, slip, abnormal noise or vibration.
- For a new or rebuilt transmission, observe the manufacturer's run-in load limits.

Caution: if shift shudder, slip or abnormal noise appears after a fluid change, stop using the vehicle immediately and verify that the fluid matches the transmission type — do not continue using it to observe.

5 In-Service Monitoring

Item	Minimum Operating Requirement	Key Judgement Point
Level / temperature	Check by the specified method	Abnormal level or persistently high temperature requires checking for leaks or cooling problems
Shift quality	Watch for shudder, slip or delayed engagement	Abnormalities suggest fluid degradation, a friction mismatch or a mechanical fault
Fluid condition	Watch for darkening, a burnt odour or particles	Abnormalities suggest overheating or clutch-material wear
Leakage	Inspect seals and pipe connections	Persistent leaks must be dealt with promptly; a low level can damage the transmission

6 Fluid-Change Interval and Judgement

Note: the fluid-change interval follows the vehicle or equipment manufacturer's service handbook. Frequent towing, mountain driving and taxi or ride-hailing duty normally require a shortened interval.

Observation	Continue in Service	Requires Attention	Change Fluid / Inspect Immediately
Shift quality	Smooth, no shudder	Occasional slight shudder	Clear slip, shudder or delayed engagement
Fluid condition	Normal colour, no odour	Darker colour but no odour	Clear burnt odour or metallic particles
Mileage / time	Within the service interval	Approaching the interval limit	Beyond the manufacturer's specified interval

Note: the above is an initial field-screening reference only. It does not replace the interval specified in the manufacturer's service handbook and is not a product guarantee. A burnt odour or metallic particles indicate possible clutch-material damage; the transmission itself should be inspected by a qualified technician rather than simply having the fluid changed.

7 Top-Up, Mixing and Fluid Change

- Before topping up, verify the product type and batch number; different transmission-fluid types must never be mixed or substituted.
- Some transmissions require a staged change (e.g. flush-and-fill) to achieve the required exchange ratio; follow the manufacturer's procedure so the new/old mixing ratio is not left uncertain.
- Where clutch-material wear or a mechanical fault is suspected, have a qualified technician establish the root cause first so that a fluid change does not mask a mechanical problem.

8 Abnormal-Condition Handling

Situation	Primary Action
Slip / shudder on shift	Stop using the vehicle immediately and verify the fluid type matches; do not continue to observe
Abnormal drop in level	Check for leaks; a low level can damage the transmission
Burnt or discoloured fluid	Overheating or clutch-material damage suspected; refer to a qualified technician
Noise / vibration	Reduce load and stop as soon as safe to inspect
Leakage	Isolate and handle the spill per the SDS; assess environmental impact

9 Reference values — indicative, not a MOTTA specification

The figures below are published industry references, given so that a reading can be judged on site when the machine documentation is not to hand. They are screening prompts, not scrap limits. Where the equipment manufacturer, the component manufacturer or your oil analysis laboratory states a figure, that figure governs and this table does not apply.

Which fluid for which mechanism

Mechanism	Fluid	Do not use
Automatic transmission with torque converter	ATF of the recommended type	CVT fluid or TO-4
Belt or chain CVT	CVTF	ATF, unless the manufacturer specifies it
Wet dual-clutch transmission	Wet DCTF	ATF or CVT fluid, unless the manufacturer specifies it
Dry dual-clutch transmission	The manual-transmission fluid the manufacturer specifies	Wet DCTF
Off-highway powershift, final drive, wet brake	TO-4 — see handbook MOTTA-TO4-OHI	ATF or engine oil, unless the manufacturer specifies it

When a reading is worth investigating

What is measured	Prompt to investigate	Why this figure
Shift quality	Shudder, slip or delayed engagement	Points at a friction mismatch, degraded fluid or a mechanical fault — find which before changing the fluid
Fluid odour and appearance	Burnt odour, or metallic particles	Darkening alone is common in service; a burnt odour points at overheating or clutch-material damage
Sustained fluid temperature	Above the manufacturer's normal operating range	Oxidation rate roughly doubles for every 10 °C — the standard rule of thumb

A single result is a reason to look, not a reason to drain. Establish the new-oil reference for the product actually in use, trend against it, and find the cause before changing the oil — changing the oil does not remove a contamination source or a mechanical fault.

10 Storage and Waste Fluid

- Keep in the original sealed container, stored in a cool, dry, ventilated area away from ignition sources.
- Transfer containers must be clean, dry and clearly labelled; different transmission-fluid types must be stored separately to prevent misuse.
- Waste fluid and contaminated materials must be collected separately and handed to a compliant disposal organisation per local regulations.

Use and document information

Caution: this manual provides general operating guidance and does not constitute engineering design, legal advice or a guarantee of outcome for any specific vehicle, country or site condition.

- Conditions of use: the user must confirm the product, vehicle type, warranty terms and regulatory requirements before use. Any unconfirmed substitution or deviation from the manufacturer's requirements should first be discussed with a qualified technician or the manufacturer.
- Data and limits: viscosity, performance level, drain interval and other figures should follow the vehicle manufacturer's service handbook, the grade-specific TDS and the SDS. This document does not independently set universal guarantee values.
- Safety and environment: storage, handling, filling and waste-oil disposal must comply with the SDS and local law. In the event of a personal-injury or environmental incident, the emergency procedure must be activated immediately and professional assistance sought.
- Limitation of liability: to the extent permitted by applicable law, MOTTA does not warrant against losses caused by incorrect selection, unconfirmed mixing, equipment defects, inadequate maintenance or failure to follow the manufacturer's requirements. This clause does not exclude liability that cannot be excluded or limited by law.
- Version control: only the latest controlled version should be used. Verify the document number, revision and corresponding product data before use.

Revision 02: moved to the current MOTTA document format; moved TO-4 fluids to their own handbook, MOTTA-TO4-OHI; excluded dry dual-clutch transmissions; aligned the English and Chinese texts; added reference values, the table of MOTTA products covered, and the copyright and trademark notice.

Recommended Records to Retain

Record	Details to retain
Vehicle	Model, registration or unit number, transmission type, mileage.
Product	Full product name, fluid type, batch number, fill quantity.
Operation	Fluid-change date, mileage, filter change, person responsible.
Operating condition	Shift quality, fluid temperature, abnormal noise.
Abnormal event	Shudder, slip, leakage, diagnosis result and action taken.

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