MOTTA LUBRICATION | TECHNICAL GUIDANCE

Y SERIES

Hydraulic, Slideway y Spindle aceites

OPERATION AND HANDLING INSTRUCTIONS

N.º de documento	Revisión	Fecha de emisión	Release status
MOTTA-Y-OHI-ES	REV.04	2026-09-13	Emitido para use

Use con the current producto TDS, SDS y equipo service instructions. Emitido by MOTTA Lubricants. The current Revisión de Este documento is published at motta-lube.com/documentos/ — if your copy differs, that list governs.

1 Alcance

For Y100/Y200/Y300/Y400 aceite hidráulicos, G200 hydraulic/slideway aceite, G500 slideway aceite y SH spindle/aceite hidráulico in their especificado aplicaciones. Shared Manejo orientación does not make them interchangeable. This guide excludes F3000 y other fire-resistant fluids.

MOTTA productos covered by this handbook

Producto	grados	Standards y nivel de desempeños	Formatos de envase
MOTTA G200	VG 32, VG 68	DIN 51502 · ISO 3448 · ISO 6743-13	18L / 200L
MOTTA G500	VG 32, VG 68, VG 150, VG 220	Cincinnati Machine P53 / P47 / P50 · DIN 51502 · ISO 3448 · ISO 6743-13	18L / 200L
MOTTA SH	VG 2, VG 5, VG 10, VG 15, VG 22	ISO 3448 · ISO 6743-2	18L / 200L
MOTTA Y100	VG 32, VG 46, VG 68, VG 100, VG 150	DIN 51524 Part 2 (HM) · ISO 11158 · ISO 3448	18L / 200L
MOTTA Y200	VG 10, VG 22, VG 32, VG 46, VG 68, VG 100	DIN 51524 Part 2 (HM) · ISO 11158 · ISO 3448	18L / 200L
MOTTA Y300	VG 15, VG 22, VG 32, VG 46, VG 68, VG 100, VG 150	DIN 51524 Part 2 (HM) · ISO 11158 · ISO 3448	18L / 200L
MOTTA Y400	VG 32, VG 46, VG 68, VG 100	DIN 51524 Part 2 (HM) · ISO 11158 · ISO 3448	18L / 200L

grados, standards y Formatos de envase as published on each producto's Ficha técnica at motta-lube.com/productos/. Where a data sheet y this table differ, the data sheet governs.

2 Seleccionar para the lubricating circuit

- Y: match the hydraulic equipo's especificado viscosity, antidesgaste performance y material compatibilidad. Set limpieza y filtration targets from the component requisitos, not from a generic aceite-family label.
- G200: verify both hydraulic y slideway requisitos donde a combined circuit is especificado. G500: use para the especificado slideways y lubrication sistema, con the required fricción behaviour y delivery. No

automatically substitute ordinary aceite hidráulico in either Aplicación.

Traducción de la versión inglesa. En caso de diferencia, prevalece la versión inglesa.

- SH: verify the exact spindle or hydraulic Aplicación, viscosity y delivery Método. A low-viscosity aceite is not suitable para every high-speed bearing. Confirm el producto TDS y máquina instructions antes de selecting.

3 Isolation y safe access

- Before opening a circuit, stop y isolate hazardous energy, secure raised loads y prevent unintended movement. Release trapped hydraulic pressure, including accumulator-connected sections, using the especificado procedure y verify the safe state. Stopping the pump alone is not proof de depressurisation.
- Nunca search para a pressurised leak con hands or tighten a leaking fitting under pressure. Keep clear, isolate y use the prescribed inspection Método. Suspected fluid injection through the skin requires immediate emergency medical assessment, even if the wound appears small.

4 Filling y commissioning

- Use limpieza, dry, dedicated transfer equipo y filtration appropriate to the sistema target. New aceite is not automatically at the required limpieza. After construction or overhaul, complete the especificado limpiezaing/Purgaring y verify acceptance antes de operating sensitive componentes.
- Fill to the especificado level con actuators in the required position. Prime pumps y bleed air only by the máquina procedure; No run a pump dry or loosen pressurised connections to bleed it. Restore guards y interlocks antes de the prescribed start-up sequence.
- Slideways: verify aceite delivery y smooth motion. Spindles: verificar feed, temperatura y vibration. Check hydraulic pressure/flow only donde fitted. Stop if the required lubrication is not established.

5 Monitoring y service decisions

- Trend level, temperatura, leakage, filter indicators y circuit-specific pressure, flow or delivery. Foaming, noise y erratic motion require investigation de air ingress, restricted supply, contamination or component faults; No assume one cause from appearance alone.
- For circulating Depósitos, establish a fresh-aceite reference y consistent sampling plan. Assess viscosity, water, acidity y wear as appropriate to el producto, con particle limpieza reported using an aplicable validated Método y ISO 4406 code donde required. ISO 11171 concerns counter calibration, not the cleanliness code.
- Use equipo-specific limits y sampling frequency, including commissioning y post-contamination verificars. Total-loss slideway lubrication is managed by delivery y component condition, not by a circulating-sump discard limit. No extend intervals from a generic viscosity percentage or a single result.

6 Top-up, conVersión y faults

- Top up con the especificado producto y record the reason y amount. Confirm specific producto y material compatibilidad antes de Mezcla or conVersión, including residual aceite y Purgaring acceptance. Matching base-aceite labels No establish compatibilidad.
- For loss de lubrication, uncontrolled motion, severe leakage, overheating or persistent abnormal pump noise, bring the máquina to its especificado safe state y investigate antes de restart. Correct the contamination source or mechanical fault; changing aceite alone may not resolve it.

7 Valores de referencia — indicativos, no una especificación de MOTTA

The figures below are published industry references, given so that a reading can be judged on site when the máquina documentación is not to hand. They are screening prompts, not scrap limits. Where the fabricante del equipo, the component manufacturer or your aceite analysis laboratory states a figure, that figure governs y this table does not apply.

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Hydraulic circuits — Y series, y G200 or SH donde used hydraulically

Target fluid limpieza, expressed as an ISO 4406:1999 code

Component in the circuit	Typical target	Source de the figure
Gear pump, low-pressure circuit	20/18/15	Component manufacturer data
Vane pump	19/17/14	Component manufacturer data
Fixed-displacement piston pump	18/16/13	Component manufacturer data
Variable piston pump, proportional valve	17/15/12	Component manufacturer data
Servo valve	16/14/11	Component manufacturer data

ISO 4406 defines the code, not the target. Targets are set by whoever made the component, so they differ between makers; use the figure in your component documentación when you have it. ISO 11171 concerns particle-counter calibration y does not change the code.

What is measured	Prompt to investigate	Why this figure
Cinemática viscosity at 40 °C	More than ±10 % from the new-aceite reference para that producto	Common condition-monitoring screening Valor; also confirms the correct producto is in the sistema
Water content	Above 0.05 % (500 ppm), or any free or emulsified water	Free water attacks additive sistemas y bearing surfaces at any level
Sustained Depósito temperatura	Above 70 °C	Oxidation rate roughly doubles para every 10 °C above 60 °C — the standard rule de thumb
Filter differential indicator	In the bypass or alarm band	Once filtration is bypassed the limpieza target above is no longer being held

Slideways — G500, y G200 donde it lubricates the ways

Reference	What it covers	Published by
DIN 51502 CGLP	Slideway aceites con anti-stick-slip performance	DIN
Cincinnati P47 / P50 / P53	máquina-builder slideway requisitos named on the G500 data sheet	máquina builder

What is measured	Prompt to investigate	Why this figure
Motion at low feed	Jerky, stop-start movement (stick-slip)	The defining slideway failure; points at the wrong aceite, too little aceite or a contaminated film
Way surfaces	Dry patches, scoring or an uneven film	A total-loss film is judged on the surface, because there is no Depósito to sample
refrigerante sump	Floating aceite increasing between limpiezaings	Slideway aceite washing into the refrigerante acortars refrigerante life; verificar delivery volume y way wipers
Metered delivery	Lubrication pump alarm, or no visible aceite at the points	Delivery failure reaches the ways antes de it shows anydonde else

Slideways are total-loss lubrication. The limpieza targets y the viscosity y water prompts para hydraulic circuits No apply to the aceite on the ways.

Traducción de la versión inglesa. En caso de diferencia, prevalece la versión inglesa.

Spindles — SH series

Reference	What it covers	Published by
ISO 6743-2 FD	Spindle-bearing lubricantes	ISO
ISO 3448	SH grados VG 2, 5, 10, 15 y 22	ISO

What is measured	Prompt to investigate	Why this figure
Spindle bearing temperatura	A rise against that spindle's own established baseline	Spindles differ too much para one figure; the trend on one spindle is the signal
Vibration	A change against the baseline	Usually the earliest sign de bearing distress
aceite, aceite-mist or air-aceite delivery	Flow below setting, or a blocked line	A high-speed bearing tolerates only a very short interruption

Use the grado de viscosidad the spindle maker specifies. A hydraulic grado is not a substitute para a spindle grado. Spindle limpieza is set by the spindle maker y is usually stricter than para the hydraulic circuit on the same máquina.

A single result is a reason to look, not a reason to drain. Establish the new-aceite reference para el producto actually in use, trend against it, y find the cause antes de changing the aceite — changing the aceite does not remove a contamination source or a mechanical fault.

8 Almacenamiento y residuos Manejo

- Keep original containers closed, dry y clearly labelled. proteger de la contaminación, ignition sources y incompatible materials; follow el producto SDS para Manejo y protective equipo.
- Use limpieza, dry, labelled transfer containers, Nunca food containers. Collect used aceite, filters y aceitey materials separately para appropriate Eliminación; keep aceite out de drains y saceite.

Use y documento information

producto-specific y equipo requisitos govern selection y service. Resolve conflicting instructions con the equipo y lubricante technical contacts antes de proceeding. Follow the site Seguridad y residuos-Manejo procedures.

Revisión 02: Separated hydraulic, slideway y spindle duties; added stored-pressure Seguridad y corrected limpieza/monitoring orientación. Revisión 03: added a reference-Valores section — published industry figures para on-site screening. Revisión 04: corrected the reference Valores para slideways, spindles, sintético aceites de engranajes y ready-to-use refrigerante; added the table de MOTTA productos covered; added the copyright y trademark notice.

Recommended Records to Retain

Record	Details to retain
Unidad / duty	máquina ID, model, hydraulic/slideway/spindle circuit y operating hours.
aceite / service	Exact producto y grado, lote, quantity, service date, filters y person responsible.
Condition / action	Top-ups, faults, sample results y Métodos donde used, diagnosis y corrective action.

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