

Periodic Maintenance

Maintenance Checklist — Grove MZ66B / Nissan A15

Everything below is transcribed directly from two real factory documents: the [Nissan A12 & A15 Industrial Engine Service Manual](#) (p.MA-2, “MAINTENANCE SCHEDULE”) for the engine, and the [Grove Operators Safety and Maintenance Handbook](#) (Section 4 “Pre-Starting Checks” and Section 5 “Lubrication Chart”) for the machine itself. Nothing here is a generic guess — where a figure isn’t confirmed by one of these documents, it’s left out rather than invented.

1. Every time before starting (daily, if in regular use)

From the Grove handbook’s PRE-STARTING CHECKS — do a complete walk-around first (structural damage, loose equipment, leaks, anything needing correction), then:

- ☐ Engine oil level (dipstick, either before starting or 5+ min after a stop)
- ☐ Engine coolant level (overflow tank)
- ☐ Battery state-of-charge, cable/clamp condition (tight, not corroded)
- ☐ Tires — cuts, embedded objects, correct inflation per decal
- ☐ Hydraulic reservoir fluid level; filter condition indicator and breather clean/secure
- ☐ Tilt alarm test (press one corner of the tilt sensor on the platform frame — buzzer should sound)
- ☐ Control operation check — engine OFF, E-stop pulled out, ignition ON: verify APU switch and every platform-control switch/controller responds, then verify every ground-control switch
- ☐ Turntable lock pin — stowed/removed for operation, installed for transport

- ☐ Air cleaner — filter clean, tubing properly installed
- ☐ Daily-interval lubrication points (see §3)

⚠ **If the machine has sat idle:** the handbook explicitly says — *“Do not let the work platform remain idle for long periods of time. At least once a week, start the work platform engine and cycle all functions several times.”* See the [post-storage inspection](#) for the catch-up this implies.

2. Nissan A15 engine schedule (from the factory manual, p.MA-2)

The manual specifies **months or hundreds of hours, whichever comes first** (e.g. “2” under hours = 200 hours). Reproduced faithfully below — for the exact cell-by-cell grid, the source page image is in the [engine service manual](#), page 9.

Operation	Interval
Retighten cylinder head bolts, manifold & exhaust tube nuts, carburetor attaching nuts	Once , at month 1 / 200 hrs (post-break-in retorque)
Adjust intake & exhaust valve clearance	Every 3 months / 600 hrs
Check drive belts (cracks, fraying, wear, tension)	Every month / 200 hrs
Change engine oil	Every month / 200 hrs
Replace engine oil filter	Approx. every 3 months / 600 hrs
Change engine anti-freeze coolant (LLC/ethylene glycol)	Annually / 2,400 hrs
Clean/replace air cleaner element (dry paper)	Clean: monthly (skip months 6 & 12); Replace: every 6 months / 1,200 hrs
Check crankcase ventilation hose	Annually / 2,400 hrs
Check & replace spark plugs	Check: every month; Replace: annually / 2,400 hrs
Check distributor point, cap, rotor	Every month / 200 hrs
Check ignition wiring	Annually / 2,400 hrs
Adjust ignition timing	Every month / 200 hrs — target 10° BTDC at idle (see Specs)
Adjust engine idle rpm	Every month / 200 hrs — target 650 rpm
Clean/replace fuel strainer, check fuel lines, clean radiator outside, check cooling hoses	Marked “follow O.E.M. instructions” in the source table — no Grove/Nissan-specific interval given

Given this machine hasn't been run in an unknown span of time, **treat it as overdue on everything in this table** rather than trying to figure out where in the cycle it last was — start the clock fresh from a full service once it's running (see the [startup procedure](#) first).

3. Grove machine — lubrication chart (T60/MZ66 handbook, Section 5)

Daily

Point	Lube/check	Amount
Hydraulic reservoir	Check level; drain/fill as necessary through top of in-tank return filter	30 gal (114 L) per Specs
Engine crankcase	Check level	—
Engine coolant	Check level	As required

Weekly

Point	Lube	Notes
Swing bearing race	Grease	Until grease extrudes around full circumference
External gear	Brush-on coating	Coat all teeth
Mid-section wear pads	EP-MPG (standard) or Dri-Slide (hostile-environment models)	Thoroughly coat wear pad surfaces on fly sides
Base section wear pads	Same as above	Inside only
Boom telescope cylinder wear pads	Same as above	Inside top/bottom of fly section
Boom mid-section top plate / fly section bottom plate / mid-section bottom plates	Same as above	Weekly brush-on

Monthly

Point	Lube	Notes
King pin bearings	EP-MPG grease	Until grease extrudes, 1 fitting each bearing
Tie rods & end links	EP-MPG grease	Until grease extrudes, 1 fitting each end
Steer cylinder	EP-MPG grease	Until grease extrudes, 1 fitting each end
Torque hubs	EPGL-5 oil	Check monthly; initial oil change at 50 hrs , then every 1,000 hrs or 1 year, whichever first. Higher operating temps need more frequent changes. Fill to 1 in (2.54 cm) below hub centerline, 17 oz (0.51 L).
Oscillating axle pivot pin	EP-MPG grease	Until grease extrudes
Swing gear box	EPGL-5	Monthly

Every 1,000 hours or annually (whichever first)

Point	Notes
Non-drive wheel bearings	Remove dust cap/cotter pin/nut/bearing, repack with EP-MPG, reinstall. More often under severe conditions.

Every 6 months (or more often under severe conditions)

Point
Hydraulic return filter element — replace
Hydraulic pressure filter element — replace

Yearly

Point
Hydraulic motors — clean, fill system

4. Filter/fluid part numbers — confirmed, no serial lookup needed

These are transcribed from the [MZ66B parts catalog](#)'s own index (both the assembly listing and the alphabetical index cross-reference agree, p.139-267) with no serial-effectivity break noted for any of them — these are correct for this machine as-is, order with confidence:

Item	Part number	Catalog page	Notes
Filter assembly, oil return	7437000112	249	
Filter assembly, hydraulic	7437000740	249	
Filter, fuel	7437000104	139	~\$139 per catalog pricing seen
Element, pressure filter	9437100642	267	~\$267 per catalog pricing seen
Element, oil return	9304100081	265	
Element, air cleaner	9304100091	147	

For the **engine** itself (gaskets, bearings, rebuild kit — not covered by the Grove parts catalog since that's Nissan's own part), quote **engine serial number 85029** when ordering from Grindstaff (816-796-7676) or any Nissan/TCM parts source — see [Specs](#) for the exact gasket set (10101-05H25) and main bearing set (12207-H1000) part numbers already confirmed.

5. Cross-references

- [Startup procedure](#) — do this **before** starting engine maintenance-schedule work; several items above (adjusting idle/timing) require the engine running and warmed up.
- [Post-storage inspection](#) — the inspection this machine actually needs given how long it's sat, before trusting the “every month” cadence above.
- [Specs](#) — bore/torque/valve-clearance specs referenced by the engine schedule above.
- [Research](#) — sourcing and provenance for every manual referenced here.

🔊 System

Powered by Hextra ○ (<https://github.com/imfing/hextra>)