

**GRANNING LYNX
R / RT / RTM / RM SERIES SUSPENSION
OWNER'S MANUAL**



granning
axle and suspension solutions

**IMPORTANT
THIS INFORMATION TO BE
PASSED TO THE OPERATOR**

SERVICING REQUIREMENTS

The following checks should be carried out as follows :-

- After first 1,500 km : Check 1
 - After 15,000 km or 1 month* : Checks 1, 2 & 3
 - Every 75,000 km or 3 months* : All checks required
- * *whichever is sooner*

1) BOLT TORQUES

Check that all the suspension bolts are torqued to the prescribed levels as per the chart below. (See exploded diagram for the bolt locations).

During torquing it is important that all threads are CLEAN and OILED in order to achieve the correct bolt tension.

When torquing check for any signs of movement which may indicate slack bolts, possibly due to contaminated threads. Clean and oil such threads as necessary.

2) WELDING

Check all welds for signs of cracking. Particular attention should be paid to the axle saddle to axle welds and the tracking plate.

Check also welds on the front hangers and supports.

3) SHOCK ABSORBERS

Check for signs of leaking hydraulic fluid, and for deterioration of rubber bushes.

4) AIR SPRINGS

Check for any signs of chaffing or wear, and for damage to pistons.

5) FRONT EYE BUSHES

Articulate the axle up and down and check for excessive movement due to worn bushes.

NB In the event of concern over any of the above, please refer to your GRANNING dealer.

NOTES ON SERVICING

a) BOLT TORQUES

Particular attention should be paid to the axle U-bolts and front eye bolts, movement in these areas can damage the suspension.

b) SHOCK ABSORBERS

Shock absorbers should be changed at 150,000 km or at the first sign of fluid leakage.

c) AIR SPRINGS

Properly used air springs can deliver over 750,000 km of service. Check regularly for signs of chaffing and correct any interferences promptly. Airsprings used in aggressive environments should be regularly cleaned and Inspected for wear. Any abrasive compounds such as sand etc. should be thoroughly cleaned off at the earliest opportunity. Failure to do so will result In premature failure of these components.

d) FRONT EYE BUSHES

Replace bushes, eye bolts, nuts and washers every 450,000 km.

BOLT TORQUE SETTINGS

ITEM N°	DESCRIPTION	BOLT DIA	TORQUE SETTING
7	Axle U-bolts	24 mm	850 Nm
3	Front Eye Bolts	30 mm	1075 Nm
	(Trailing Arm Centre Bolt)	12 mm	65 Nm
22	Air Spring Pedestal Bolts (Bottom)	12 mm	65 Nm
25	Air Spring Upper Pad Stud	20 mm	60 Nm
24	Air Spring Upper Pad Stud	12 mm	35 Nm
13A	Shock Absorber Bolts (Upper & Lower)	24 mm	570 Nm



granning
axle and suspension solutions

Trouble Shooting

Running Gear

Hard Pulling (grabbing)

PROBABLE CAUSE	REMEDY
Axle(s) out of alignment	Realign axles, check all suspension/axle components for damage ('U' bolts, pivot pins / bushes, shock absorbers etc.) and replace as required. Torque tighten all fixings.
Broken road spring / trailing arm	Replace.
Air suspension down one side	Refer to 'Air suspension faults'

Lift axle will not lift

PROBABLE CAUSE	REMEDY
Insufficient air supply	Build tractor air pressure up to 5.8bar (85psi)
Leak in system	Inspect for damage, check for leaks and rectify.
Faulty control valve	Replace.

Lift axle will not lower

PROBABLE CAUSE	REMEDY
Faulty control valve	Replace

Air Suspension

Air springs flat

PROBABLE CAUSE	REMEDY
Insufficient air supply	Build tractor air pressure up to 5.8bar (85psi).
Pressure protection / charging Valve	Should be set to supply 5bar (72psi), reset or replace.
Clogged in-line air filter	Clean or Replace element.

Trouble Shooting

Air Suspension

Air springs flat

PROBABLE CAUSE	REMEDY
Leak in air lines, connections or air spring assembly	Inspect for damage and test for leaks, locate and repair or replace.
Faulty levelling valve	Inspect, test and replace as required.
Faulty air load Sensing valve	Inspect, test and replace as required.
Faulty exhaust valve (if fitted)	Inspect, test and replace as required.
Faulty Raise / Lower valve (if fitted)	Inspect, test and replace as required.

Suspension deflates rapidly when parked

PROBABLE CAUSE	REMEDY
Leak in air lines, connections or air spring assemblies	Inspect for damage and test for leaks, locate and repair or replace.

Excessively worn air springs

PROBABLE CAUSE	REMEDY
Air spring contacting the frame, or rims	Check for correct tyre sizes and inflation. Measure tyres clearances, contact Granning.
Over extension of air springs	Adjust 'Ride Height'. Check variable height control (Raise / Lower) valve and set to 'Ride' position.
Operating with insufficient air pressure	Check items listed under 'Air springs flat'
Worn shock absorbers	Replace.

Trouble Shooting

Air Suspension

Air springs flat

PROBABLE CAUSE

REMEDY

Levelling valve linkage

Repair or replace disconnected or broken part.

Incorrectly set levelling valve

Adjust 'Ride Height'.

Incorrectly set variable height
(Raise / Lower) valve, if fitted

Set to 'Ride' position.

Trailer rides too low

PROBABLE CAUSE

REMEDY

Incorrectly set exhaust valve

Push knob in.

Excessive shock absorber wear

PROBABLE CAUSE

REMEDY

Faulty levelling valve
(over active suspension)

Replace
