SERVICE MAN UAL

VX7090

Grape Harvester

Print No. 84404824B

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SECTION 00 - MAINTENANCE

Chapter 1

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CHAPTER 1 - TIER 2 engine

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Chapter 1 bis - TIER 3 engine

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SECTION 50 - CAB

Chapter 1 - Cab climate control

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ENGINE TROUBLESHOOTING

(follows)

Fault	Possible causes	Corrective procedures
	8. Faulty charge pump.	Replace the charge pump.
	9. Irregular valve-to-tappet clearance.	Adjust the valve-to-tappet clearance.
	10. Low compression.	Check the compressor and the engine, if necessary.
	11. Air filter clogged.	Clean and replace the filter element, as necessary.
	12. Wrongly adjusted link rod between throttle and injection pump.	Adjust the link rod length.
	13. Wrongly adjusted max. speed screw on the injection pump.	Adjust the max. speed screw.
The engine makes knocking noises.	1. Faulty or partly clogged injectors.	Clean and overhaul the injectors; adjust the pressure.
	2. Dirt in the fuel supply circuit.	Clean the fuel supply circuit and replace the damaged lines. Clean the injection pump, if required.
	3. Incorrect injection pump timing.	Adjust the injection pump timing.
	4. Crankshaft seizure due to excessive clearance of stops or main/big end bearings, or too high end float.	Re-grind crankshaft journals and crankpins. Place oversized thrust washers and bearings.
	5. Unbalanced crankshaft.	Check crankshaft alignment and balance; replace, if necessary.
	6. Loose flywheel fastening bolts.	Replace the loose bolts and tighten the new bolts to the specified starting torque and then to the angle torque values.
	7. Missing parallelism between bushing small and big end axes.	Straighten the connecting rods and check the axis parallelism; replace the connecting rods, if required.
	8. Piston seizure due to irregular wear.	Rebore the cylinder liners and fit oversized pistons.
	9. Noisy piston pins due to a high clearance between piston gudgeon pins and bushing small end. Loosen bushings in small end.	Fit oversized piston pins, rebore piston seats and small end bushings. Replace the bushings with new ones.
	10. Timing system noisy.	Check for broken springs or excessive play between valve stems and guides, tappets and bores. Adjust valve clearance.

(continues on the next page)

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TECHNICAL SPECIFICATIONS

	Re.		
		THERMAL ENGINE	
		Idling speed	800 ± 50 rpm
		Max. empty speed	2500 ± 50 rpm
		Max. speed under load	2300 ± 25 rpm
	132	**LIFTING BLOCK**	
	201	**"REXROTH" INCHING PUMP**	
219	1	Forward range HP	505 - 20 bar at temperature > or = 60°C in the reservoir
223	2	Reverse range HP	505 - 20 bar at temperature > or = 60°C in the reservoir
219	4	Capacity elimination pressure	480 ± 10 bar at temperature > or = 60°C in the reservoir
215	3	Priming pressure	25 $^{+3/-0}$ bar **without** braking action reduction at temperature > or = 60°C in the reservoir
215	3	Priming pressure	30 $^{+2/-0}$ bar **with** braking action reduction at temperature > or = 60°C in the reservoir (***)
	206	**HP BLOCK**	
215(*)	208	Exchange valve pressure	25 +0/-2 bar at temperature > or = 60°C in the reservoir
(**)	218	Pressure limiter pressure for RH serial line	480 - 20 bar (for the procedure see high pressure block)
(**)	217	Pressure limiter pressure for LH serial line	480 - 20 bar (for the procedure see high pressure block)
136	213	NORIA limiter pressure (in washing position)	160 ± 10 bar

NOTE: *(*) this value is given just as information, because this valve is adjusted also through a flow, thus its adjustment must not be modified.*
(**) No pressure intake (see chapter of the HP block).
(***) Braking action reduction = 25 bar through the limiter (226) without any adjustment and no pressure intake

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ADDITIONAL RADIATOR FAN CONTROL WIRING DIAGRAM

350	Engine
351	Relay
352	Temperature probe
F28	Free fuse, 30 A

ENGINE FAN CONTROL WIRING DIAGRAM up to series 006

118	Relay
119	Thermal engine water temperature probe
120	Hydraulic oil temperature probe (on inching pump)

77	Solenoid valve for fan 2 speed control

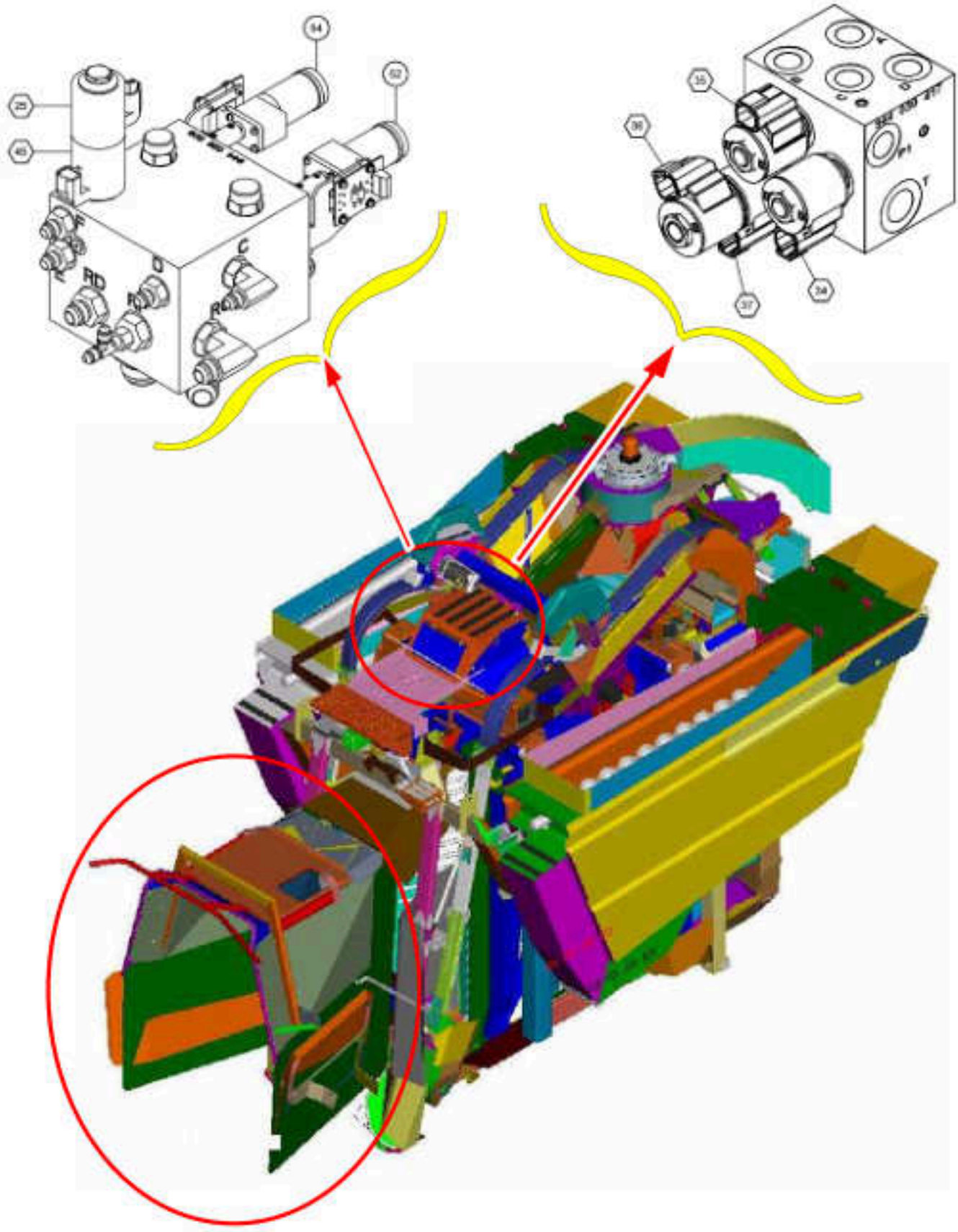
Operation features

- When the two probes (119) and (120) are open (less than 90°C) the solenoid valve (77) is powered and the fan rotates at min. speed.
- When either probe closes (over 90°C) the solenoid valve is excluded and the fan rotates at max. speed.

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Cleaning control hydraulic blocks

Shaking gauge control hydraulic blocks



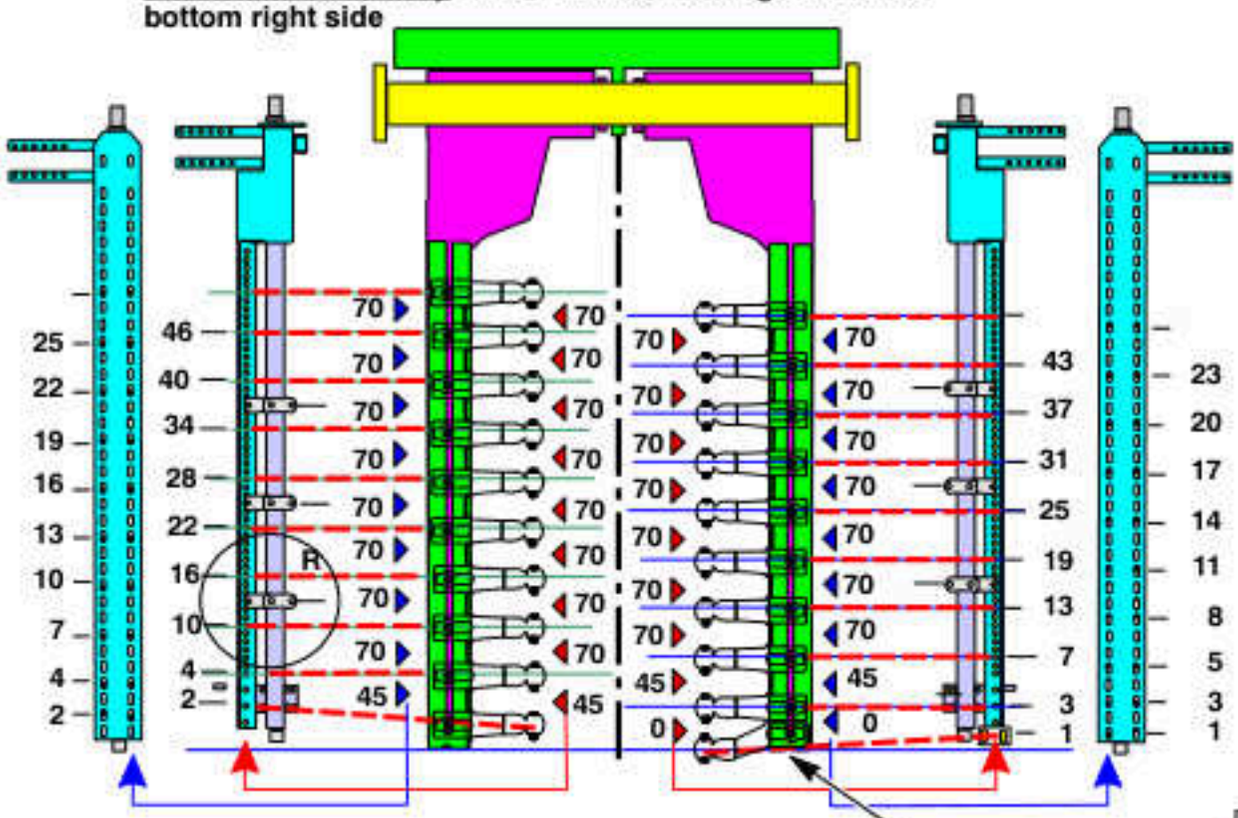
Tunnel installed on the self-propelled machine

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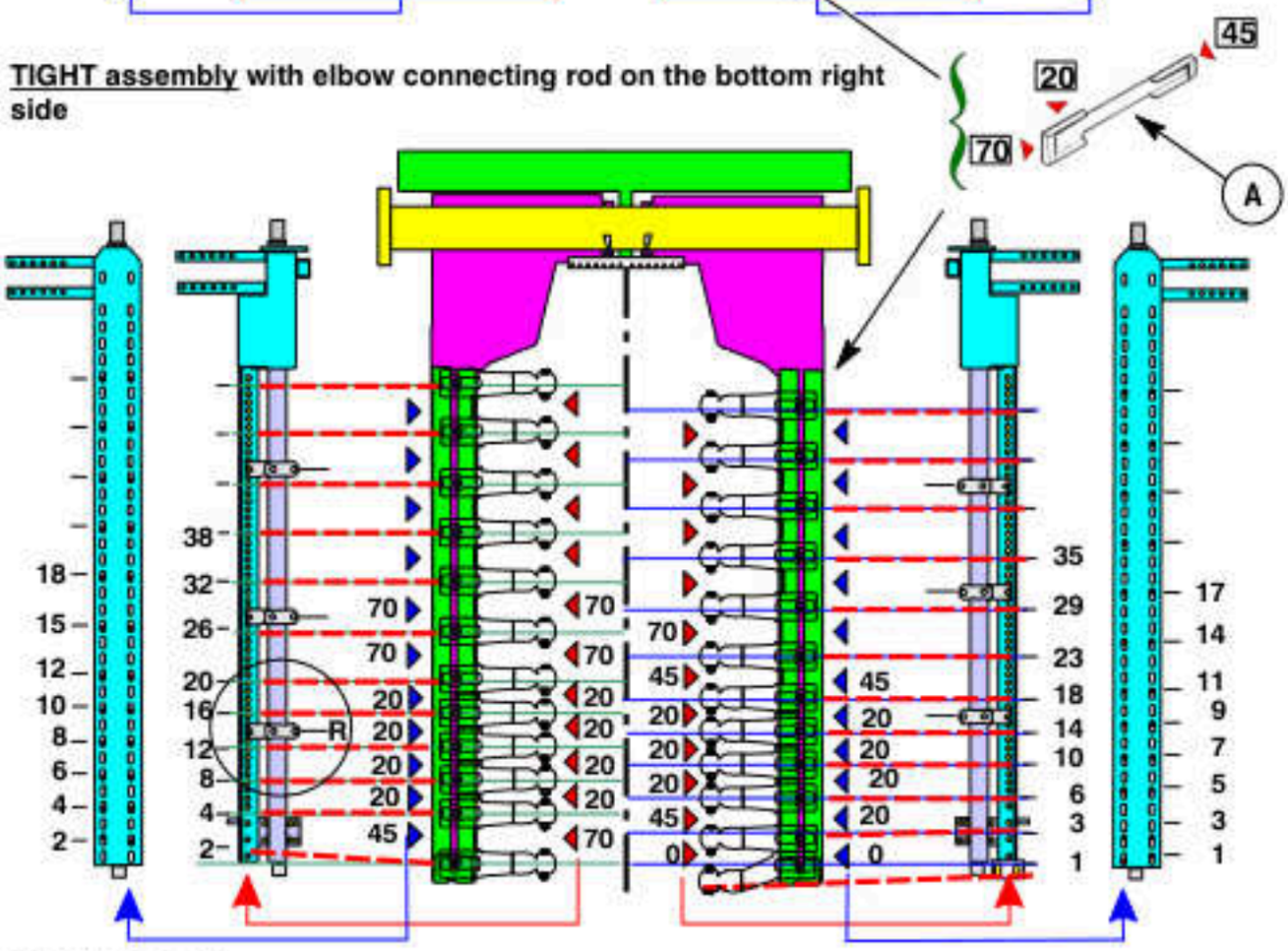
Fig. 9

Removable and not-removable shakers with FLEXIBLE REAR CONNECTING RODS

STANDARD assembly with elbow connecting rod on the bottom right side



TIGHT assembly with elbow connecting rod on the bottom right side



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