ROAD ROLLER

SERVICE MANUAL

HR70C, HR119, HR120, HR140C-9 Tier 3

HYUNDAI

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with pad foot drum	HR70C-9	HR110C-9	HR120C-9	HR140C-9
General data:				
Service weight	7250 kg	11200 kg	12000 kg	13900 kg
Axle load, front	4200 kg	6100 kg	6900 kg	8000 kg
Axle load, rear	3150 kg	5100 kg	5100 kg	5900 kg
Compaction performance:				
Static linear load	/	/	/	/
Amplitude high / low	1.8 / 0.8 mm	1.8 / 0.8 mm	1.8 / 0.6 mm	1.9 / 0.7 mm
Frequency at high / low amplitude	30 / 40 Hz	30 / 38 Hz	30 / 40 Hz	30 / 40 Hz
Centrifugal force at high / low ampl.	120 / 90 kN	220 / 150 kN	240 / 140 kN	280 / 180
Drum:				
Drum width	1700 mm	2100 mm	2100 mm	2100 mm
Drum diameter	11400 mm	1390 mm	1390 mm	1390 mm
Drum thickness	15 mm	25 mm	30 mm	30 mm
Drive / Transmission:				
Speed	0-10 km/h	0-12.5 km/h	0-12.5 km/h	0-12.5 km/h
Angular movement	+/- 12°	+/- 12°	+/- 12°	+/- 12°
Gradeability with / without vibration	45% / 50%	43% / 48%	48% / 52%	40% / 45%
Noise level:				
Sound power level L_{WA}	106 dB	106 dB	106 dB	106 dB

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Chapter 8

Drive unit of the vibration system

Contents

This chapter provides you with information about:

- the vibration system and its drive unit
- the functions and trouble shooting
- the measuring and default values
- the layout of the measuring points
- the options for making adjustments

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Electric circuit diagrams

HR110C-9, HR120C-9, HR140C-9

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7.1.9 Speeds, hydraulic measuring and adjustment values for compaction rollers

Measurement/Adjustment	Adjustment values HR70C-9	Adjustment values HR110/120C-9	Adjustment values HR140C-9	Measuring point
Diesel engine idling speed min.	950 - -1,000 min^{-1}	900 min^{-1}	900 min^{-1}	Diesel engine
Supply pressure	26 bar	26 bar	26 bar	HP
Diesel engine idling speed max.	2300 - -2,400 min^{-1}	2,300 min^{-1}	2,500 min^{-1}	Diesel engine
Supply pressure	30 bar	30 bar	30 bar	HP
Diesel engine speed max.	2100 - -2,200 min^{-1}	2,200 min^{-1}	2,400 min^{-1}	Diesel engine
Traveling drive forward	460 bar	460 bar	460 bar	MA
Diesel engine speed max.	2100 - -2,200 min^{-1}	2,200 min^{-1}	2,400 min^{-1}	Diesel engine
Traveling drive reverse	460 bar	460 bar	460 bar	MB
Roller speed max.	6.21 mi/h 50 m in 17s -19 s	7.46 mi/h 50 m in 14s - 16s		Test track/Stop watch

7.1.10 Overview of the measuring points and prerequisites of measurement



HR70C-9

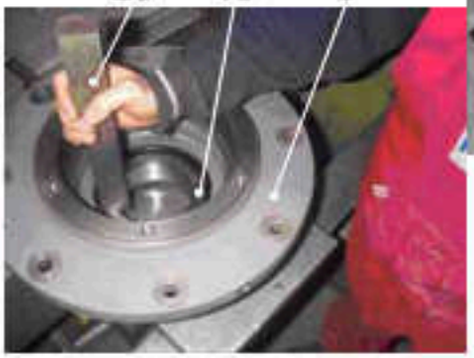


ATTENTION!
To enable measurement of the speeds and hydraulic oil pressures the Diesel engine must have reached its operating pressure and the hydraulic oil 50° C min. in the supply circuit.

NOTE!
Determining the maximum roller speed:
Travel a defined distance of 50 m at a max. roller speed reached before.
Measure the time required with stop watch.

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7.2.4 Removing the bearing

Figure	Work to be executed
   	**Removing the bearing housing on the drum drive side:** • Deposit the bearing housing (13) on a workbench. • Compress and remove the retainer (15) with circlip pliers (14)l. • Rotate the bearing housing through 180°. • Turn two forcing screws (16) into the tap holes of the bearing housing (13) and force the bearing (17) out of the bearing housing. **Removing the bearing housing on the vibration drive side:** • Deposit the bearing housing (8) on a workbench. • Compress and remove the retainer (19) with circlip pliers (14). • Rotate the bearing housing (8) through 180°. • You must beat the bearing (18) out of the bearing housing (8) using a mandrel (29). **Pulling the bearing rings off the shaft journal:** • Force the inner bearing rings (21) off the journal (22) using a mandrel.

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