



SERVICEMAN HANDBOOK For KH Series

**KH100D, KH125D, KH125-3
KH150-3, KH180-3, KH230-3
KH300-3, KH500-3**

1. FOREWORD

This **SERVICEMAN HANDBOOK** complies the data of the KH Series as categorized by each model.

It is mainly composed of the specifications of main equipment, its performance and measured performance data, as well as the standards and other items necessary for the field services.

As to the method of performance measurement and other details, refer to the Service Manual.

2. TO UPDATE THE CONTENTS OF THE SERVICEMAN HANDBOOK

The each serviceman handbook is serially numbered and is recorded by us with the name of the person who received this handbook.

And they are referred when the delivered serviceman handbook are required to be revised by up-to-date information as such information must be supplied quickly and correctly.

Please, advice us the name of person who keeps the serviceman handbook and is in responsible to keep it up-to-date by sending back to us the slip of the shipping information sheet enclosed in the handbook.

In case that the personal administration change is made, please inform us of the name of the person who is newly appointed to maintain the handbook.

3. TO KEEP CONFIDENTIAL

Please, keep the technical informations and know-how contained in the serviceman handbook confidential to the outsiders.

4. PERFORMANCE CHECK

4.1 PURPOSE OF PERFORMANCE CHECK

The purpose of "**PERFORMANCE CHECK**" are to measure:

4.1.1 Operational performance of a new machine

In case that a new machine is delivered in sections to a customer's site, it must be tested to confirm that the operational performance of the machine can meet the "**STANDARD**" after being reassembled.

4.1.2 Operational performance of an operated machine

With the time progress of operation, the machine operational performance becomes deteriorated so that the machine needs to be serviced periodically to restore its original performance.

Before the machine is serviced, the performance check of it is carried out to check the extent of deterioration.

And the check results are collated with the "**GUIDE TO SERVICE**" or "**SERVICE LIMIT OF USE**" to decide the kinds of services applied.

4.1.3 Operational performance of a repaired machine

After the machine was repaired or serviced, it must be tested to confirm how the operational performance of it is restored by the repair and/or service work applied.

4.2 TERMINOLOGY

4.2.1 STANDARD

Specifications applied to the brand new machine, components and parts. These are sometimes accompanied with tolerances.

4.2.2 GUIDE TO SERVICE

Recommendable level to service the machine. When the performance level of the machine comes lower than this level, the machine needs to be served to renew its original performance.

The parts and components shall be repaired and/or adjusted.

4.2.3 SERVICE LIMIT OF USE

The lowest level of the performance. When the performance level of the machine comes lower than this level, the machine must be stopped to work and repaired. The parts and components must be replaced for renewal.

4.3 PREPARATION FOR PERFORMANCE CHECK

Observe the following rule to carry out the performance test accurately and safely.

4.3.1 TEST MACHINE

Repair the machine with any defects and damages found from outside such as oil and water leak, loose bolts, cracks and so on, before starting the test.

4.3.2 TEST YARD

- (1) Select a flat and hard ground.
- (2) Secure the space area enough to allow the machine to run straight more than 20 m and to make a swing motion .
- (3) If required, rope the test yard and provide a signboards to keep the outsider off.

4.3.3 PRECAUTION

- (1) Before starting the test, decide the kinds of signals employed for communication made among the coworkers.
Once the test starts, be sure to communicate each other with the signals and follow them without fall.
- (2) Operate the machine deliberately and always give the first priority to the safety operation.
- (3) During the test, always be careful to avoid accidents due to a landslide or contact with a high voltage power line.
Always confirm of a sufficient space for seing motion is kept.
- (4) Try not to pollute the machine and the earth with leaked oil. Pay attention it specially when removing the hydraulic pipings.

4.3.4 REQUESTS FOR PRECISE MEASUREMENT

- (1) Calibrate the test instruments in advance accurately to get the correct data.
- (2) Carry out the test under the correct test conditions prescribed for each test item.
- (3) Repeat the same test and confirm if the test data measures can be procured repeatedly. Use the mean values of the measurement of necessary.

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ENGINE

UNDERCARRIAGE

SUPERSTRUCTURE

PRESSURE
MEASUREMENT

HYDRAULIC
CIRCUIT

ELECTRICAL
CIRCUIT

SECTION 1. ENGINE

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1. MAIN SPECIFICATIONS

		KH100D (1001 ~)	KH125D (0802 ~)	KH125 ₃ (0601 ~ 0727)	KH125 ₃ (0801 ~)	KH150 ₃ (0803 ~ 0910)
Model		HINO H06C-T	←	HINO EM 100	HINO H06C-T	HINO EM 100
Cyl. nos- bore × stroke	mm	6-108 × 118	←	6-124 × 130	6-108 × 118	6-124 × 130
Piston displacement	cc	6 485	←	9 419	6 485	9 419
Compression ratio		17.7	←	18.0	17.7	18.0
Dry weight	kg (lb)	580 (1 279)	←	740 (1 631)	580 (1 279)	740 (1 631)
Dimensions (L × W × H)	mm	1 221 × 791 × 1 006	←	1 364 × 828 × 1 030	1 221 × 791 × 1 006	1 364 × 828 × 1 030
Firing order		1-4-2-6-3-5	←	←	←	←
Rotating direction (view from fan)		Clockwise	←	←	←	←
Injection timing (before T.D.C)		16°	←	18°	16°	18°
Valve clearance (cold)	mm	IN 0.3 OUT 0.45	←	IN 0.4 OUT 0.5	IN 0.3 OUT 0.45	IN 0.4 OUT 0.5
Rated horsepower	PS/rpm	155 / 2100	←	150 / 2000	155 / 2100	150 / 2000
Max. torque	kgf·m	54 / 1800 rpm	←	60 / 1600 rpm	54 / 1800 rpm	60 / 1600 rpm
Low idle speed	rpm	825 ± 25	←	750 ± 25	825 ± 25	750 ± 25
High idle speed	rpm	2 250 ± 50	←	2 150 ± 50	2 250 ± 50	2 150 ± 50
Compression pressure	kgf/cm ² (psi)	33~36 (470~512)	←	28~30 (400~427)	33~36 (470~512)	28~30 (400~427)
Fuel consumption ratio	g/PS·hr	Less than 165	←	Less than 175	Less than 165	Less than 175