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EC Declaration of Conformity

(Original instruction)

This declaration of conformity is issued under the sole responsibility of manufacturer:

HYUNDAI CONSTRUCTION EQUIPMENT CO., LTD.

12th Fl., Hyundai Bldg. 75, Yulgok-ro, Jongno-gu,
Seoul 03058, Korea

Hyundai Construction Equipment Europe N.V located at Hyundailaan 4, 3980 Tessenderlo, Belgium, an authorized representative in the European Community is authorized to compile the technical construction file and declares that the product:

Type: *****
Model: *****
Serial number (PIN): *****

Conforms with the relevant provisions of the Community harmonization legislation:

2006/42/EC - Machinery directive
2014/30/EU - Electromagnetic compatibility directive
2000/14/EC - Noise emission outdoor equipment directive
2002/44/EU - Exposure of workers to vibration risks directive
their amendments, and other applicable directives.

EMC (2014/30/EU)

Certificate number: *****
Date: DD/MM/YYYY
Notified body: *****

Noise levels (2000/14/EC)

Certificate number: *****
Date: DD/MM/YYYY
Conformity assessment proc.: Annex VIII Full Quality Assurance
Notified body: *****
Measured sound power level: nnn.n dB(A)
Guaranteed sound power level: nnn.n dB(A)

Engine information

Manufacturer : *****
Engine model name: *****
Type-approval number: *****
Stage (Regulation) : STAGE ** (**/**/**)
Gross Power (SAE J1995): ***kW / ****rpm
Net Power (SAE J1349): ***kW / ****rpm

Harmonized standards, other technical standards and specifications applied:

EN 474-1:2006+A*:**** (EMM - Safety - Part 1); EN 474-3:2006+A*:**** (EMM - Safety - Part 3); EN ISO 3471:2008 (EMM - ROPS: Lateral/Vertical/Longitudinal loads); EN ISO 3449:2008 (EMM - FOPS: Level II cabin); ISO 2631-1:1997 & ISO 2631-1:1997/Amd1 :2010 (Whole-body vibration); EN ISO 5349-1:2001 & EN ISO 5349-2:2001 & EN ISO 5349-2:2001/A1:2015 (Hand-arm vibration)

Managing Director
Place, date of issue: Tessenderlo Belgium, DD MM YYYY

FOREWORD

This manual contains several instructions and safety recommendations regarding driving, handling, lubrication, maintenance, inspection, and adjustment of the machine.

The manual is to promote safety maintenance and enhance machine performance.

Keep this manual handy and have all personnel read it periodically.

If you sell the machine, be sure to give this manual to the new owners.

This machine complies with the EC directive "2006/42/EC".

1. **Read** and **understand** this manual before operating the machine.

This operator's manual may contain attachments and optional equipment that are not available in your area. Please consult your local Hyundai distributor for those items you require.

Improper operation and maintenance of this machine can be hazardous and could result in serious injury or death.

Some actions involved in the operation and maintenance of the machine can cause a serious accident if they are not done in a manner described in this manual.

The procedures and precautions are given in this manual apply only to the intended uses of the machine.

If you use your machine for any unintended uses that are not specifically prohibited, you must be sure that it is safe for you and others. In no event should you or others engage in prohibited uses of actions as described in this manual.

Some illustrations in this manual show details or attachments that can be different from your machine. Covers and guards might have been removed for illustrative purposes.

2. **Inspect** the jobsite and **follow** the safety recommendations in the **safety hints** section before operating the machine.

3. Use **genuine Hyundai spare parts** for the replacement of parts.

We expressly point out that Hyundai will not accept any responsibility for defects resulting from non-genuine parts or non-workmanlike repair.

In such cases, Hyundai cannot assume liability for any damage.

Continuing improvements in the design of this machine can lead to changes in detail which may not be reflected in this manual. Consult Hyundai or your Hyundai distributor for the latest available information for your machine or questions regarding information in this manual.

EMISSION-RELATED COMPONENTS WARRANTY (USA AND CANADA ONLY)

Hyundai shall have obligation under the EPA (Environmental Protection Agency) regulation of warranty about Emission-related components. This warranty shall exist for 3,000 hours or 5 years, whichever occurs first.

Naturally, this warranty does not cover damage arising from accident, misuse or negligence, use of non-Hyundai parts, or alterations not authorized by Hyundai.

※ Emission-related components according to the EPA regulation.

1. Air-induction system.
2. Fuel system.
3. Ignition system.
4. Exhaust gas recirculation systems.
5. After treatment devices.
6. Crankcase ventilation valves.
7. Sensors.
8. Electronic control units.

BEFORE SERVICING THIS MACHINE

It is the responsibility of the owner and all service and maintenance personnel to avoid accidents and serious injury by keeping this machine properly maintained.

It also is the responsibility of the owner and all service and maintenance personnel to avoid accidents and serious injury while servicing the machine.

No one should service or attempt to repair this machine without proper training and supervision.

All service and maintenance personnel should be thoroughly familiar with the procedures and precautions contained in this manual.

All personnel also must be aware of any federal, state, provincial, or local laws or regulations covering the use and service of construction equipment.

The procedures in this manual do not supersede any requirements imposed by federal, state, provincial, or local laws.

Hyundai can not anticipate every possible circumstance or environment in which this machine may be used and serviced.

All personnel must remain alert to potential hazards.

Work within your level of training and skill.

Ask your supervisor if you are uncertain about a particular task. Do not try to do too much too fast.

Use your common sense.

※ How to adjust the language of monitor

Users can select their preferred language and all displays are changed the selected language.



※ Please refer to the page 3-34 for the monitor.

TABLE TO ENTER SERIAL NO. AND DISTRIBUTOR

Machine Serial No.	
Engine Serial No.	
Manufacturing year	
Manufacturer Address	Hyundai Construction Equipment co., Ltd. 12th, Fl., Hyundai Bldg. 75, Yulgok-ro, Jongno-Gu, Seoul, 03058, Korea
Distributor for North Americas Address	Hyundai Construction Equipment Americas, Inc 6100 Atlantic Boulevard Norcross GA 30071 U.S.A
Distributor for Europe Address	Hyundai Construction Equipment Europe N. V. Hyundailaan 4 3980 Tessenderlo Belgium
Dealer Address	

EC REGULATION APPROVED

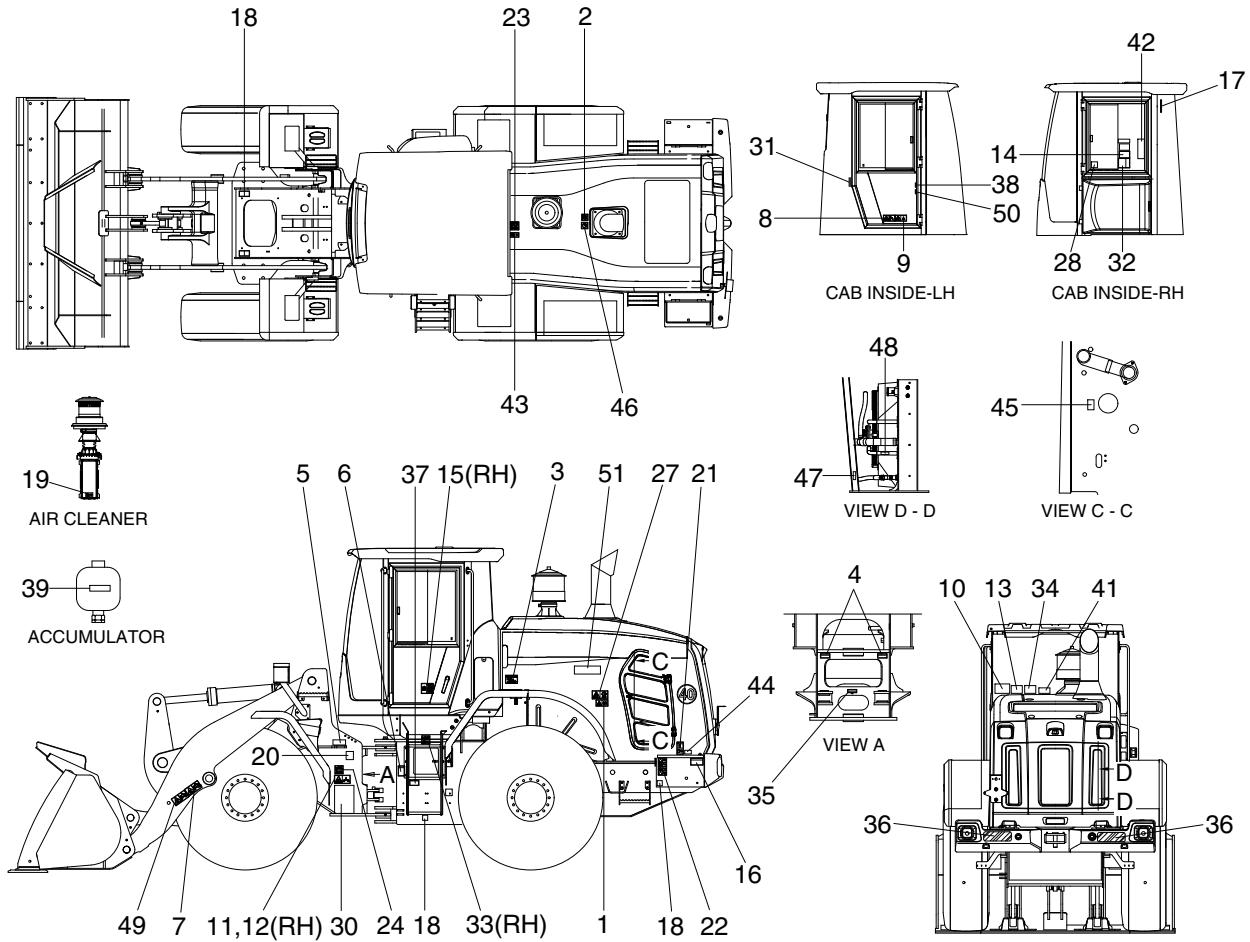
- Noise level (EN474-1: 2006 and 2000/14/EC) are as follows.
LWA : 102 dB (EU only)
LPA : 68 dB
- The value of vibrations transmitted by the operator's seat is lower than the standard value of (EN474-1: 2006 and 2002/44/EC)



SAFETY LABELS

1. LOCATION

Always keep these labels clean. If they are lost or damaged, attach them again or replace them with a new label.



940A0FW03

- | | | |
|---------------------------|--------------------------|--|
| 1 Start motor | 17 Hammer | 35 Grease (center) |
| 2 Turbocharger cover | 18 Lift & tie | 36 Keep clear/Reflect |
| 3 Hyd oil level | 19 Air cleaner | 37 Nameplate |
| 4 Ride control (option) | 20 Manual lowering valve | 38 ROPS plate |
| 5 Grease (A) | 21 Fueling | 39 Accumulator |
| 6 Grease (B) | 22 Battery accident | 41 Caution (water separator, turbocharger) |
| 7 Bucket stopper | 23 Hyd oil lube | 42 Tilt handle |
| 8 Max h/reach | 24 High-pressure hose | 43 Fuel shut off |
| 9 Rollover | 25 Bio oil | 44 Ultra-low sulfur diesel |
| 10 ROPS cab | 27 Engine door shearing | 45 Emergency fire hole |
| 11 Steering warning-LH | 28 Alternate exit | 46 No step |
| 12 Steering warning-RH | 30 Service instruction | 47 Refrigerant |
| 13 Engine start caution | 31 Fire extinguisher | 48 Use handrail |
| 14 Control ideogram | 32 Start procedure | 49 Quick coupler |
| 15 Air conditioner filter | 33 Diesel exhaust fluid | 50 Engine nameplate |
| 16 Electric welding | 34 Specification sheet | |

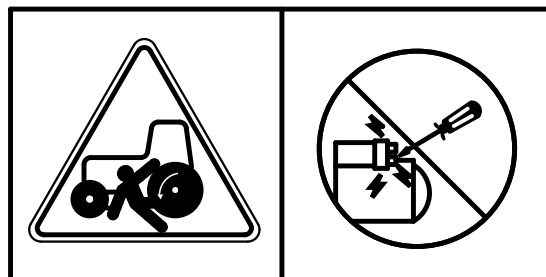
2. DESCRIPTION

There are several specific warning labels on this machine please become familiarized with all warning labels. Replace any safety label that is damaged, or missing. If a safety label is attached to a part that is replaced, install a safety label on the replacement part.

1) START MOTOR (item 1)

This warning label is positioned on the left side of the engine hood.

- ▲ You should always start the engine from the operators cab. Never use objects to crossover the starter solenoid terminals or crossover the battery terminals. Crossing over terminals could bypass the engine neutral start system. Possibly over damage the electrical system.



77070FW05

2) TURBOCHARGER COVER (item 2)

This warning label is positioned on the turbocharger cover.

- ▲ Do not touch turbocharger or it may cause a severe burn. When the engine is running or immediately after engine shut down.

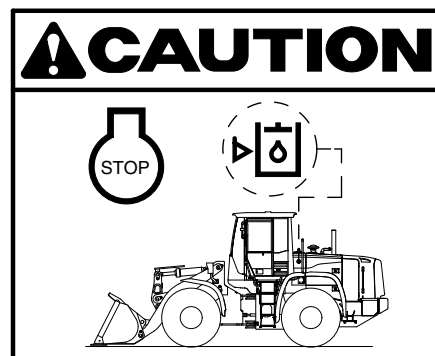


21070FW02

3) HYDRAULIC OIL LEVEL (item 3)

This warning label is positioned on the left side the of the hydraulic oil tank.

- ▲ Place the bucket on the ground whenever servicing the hydraulic system.
- ※ Check the oil level on the level gauge.
- ※ Refill the recommended hydraulic oil up to a specified level if necessary.



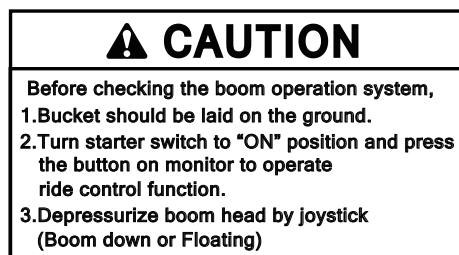
7609A0FW06

4) RIDE CONTROL (item 4)

This warning label is positioned on the front frame.

Before checking the boom operation system,

1. The bucket should be laid on the ground.
2. Turn start switch to "ON" position and press the button on monitor to operate ride control function.
3. Depressurize boom head by joystick.
(boom down or floating)

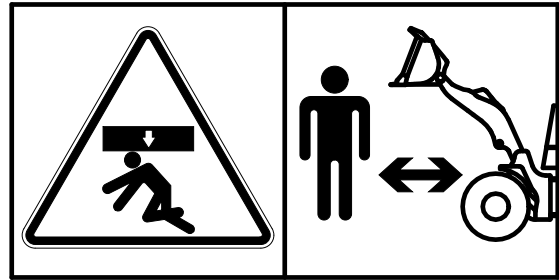


970A0FW90

5) BUCKET STOPPER (item 7)

This warning label is positioned on the middle of the boom.

- ⚠ When working under or around the bucket or linkage, with bucket raised period, Proper support must be provided for the bucket and/or the linkage.

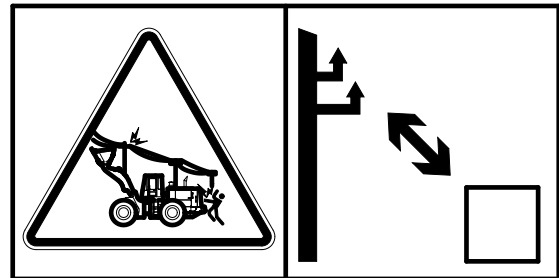


7803AFW05

6) MAX HEIGHT (item 8)

This warning label is positioned on the left side window of the cab.

- ⚠ Serious injury or death can result from contact with electric lines. An electric shock is received by merely coming into the vicinity of an electric lines, the minimum distance should be kept considering the supply voltage as page 1-6.



7803AFW16

7) ROLLOVER (item 9)

This warning label is positioned on the left side window of the cab.

- ⚠ Structural damage caused from an overturn, modification, alternating, or improper repair. Can weaken the structure's protection ability, thereby, voiding the warranty certification. Always wear the seat belt when operating this machine.
- ⚠ Always check the condition of the seat belt and the condition of the seatbelt mounting hardware before you operate the machine.

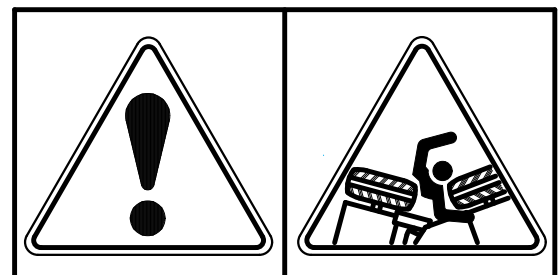


77070FW14

8) STEERING WARNING (item 11, 12)

The warning label is positioned on the both side of the front frame.

- ⚠ No clearance for person in this area when machine turns.
- ⚠ Severe injury or death from crushing could occur.

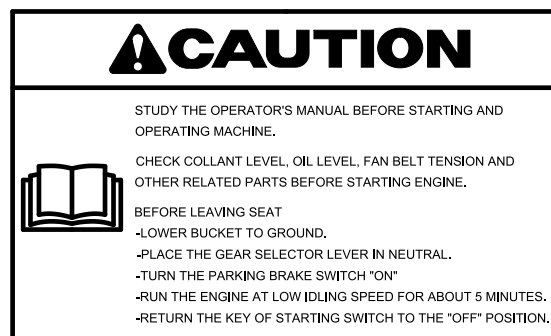


77070FW07

9) ENGINE START CAUTION (item 13)

This warning label is positioned on the right side window of the cab.

- ▲ **Study the operator's manual before starting and operating machine.**



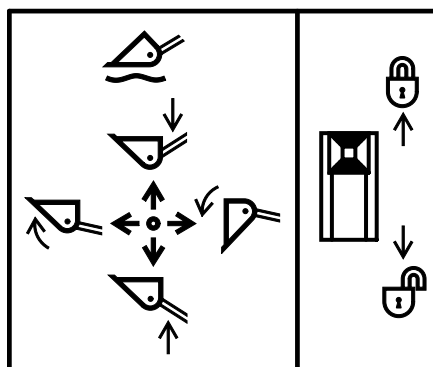
77070FW08

10) CONTROL IDEOGRAM (item 14)

This warning label is positioned on the right side window of the cab.

- ▲ **Confirm the operation of the control lever and working device before operating the machine.**

※ Refer to the page 4-9 for details.

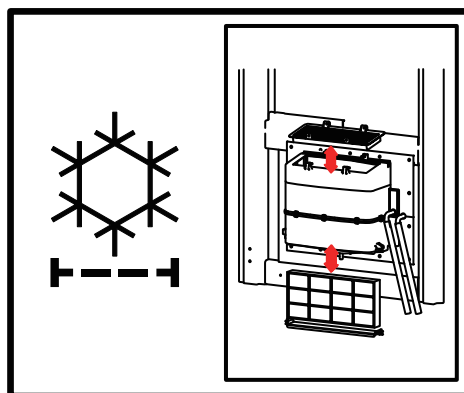


74090FW04

11) AIR CONDITIONER FILTER (item 15)

This warning label is positioned on the air-conditioner filter.

- ※ **Periodic and proper inspection, cleaning and changing of the filter prolongs the life of the air conditioner maintaining good performance.**



760F0FW10

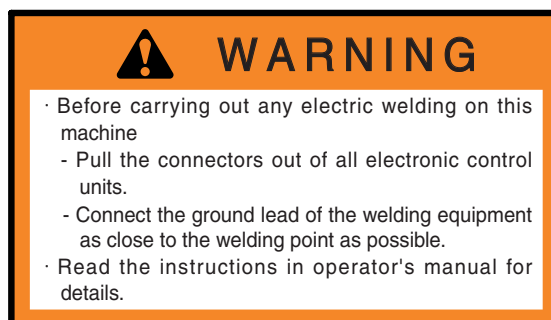
12) ELECTRIC WELDING (item 16)

This warning label is positioned on the side of the battery box.

- ▲ **Before carrying out any electric welding on this machine**

- Pull the connectors out of all electronic control units.
- Connect the ground lead of the welding equipment as close to the welding point as possible.

※ Refer to the page 6-48 for details.



7803AFW20

13) LIFTING-EYE & TIE (item 18)

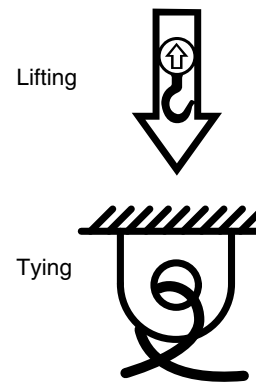
This label is positioned on the both side of the front and rear frame.

- Lifting-Eye point

To lift the machine, attach the lifting devices to the lifting-eyes.

- Tie-Down Points

To tie down the machine, attach the tie-downs to the tie-down.

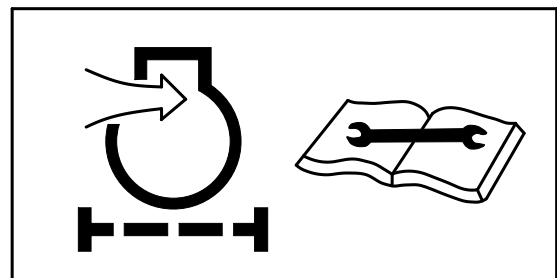


75790FW04

14) AIR CLEANER (item 19)

The warning label is positioned on the air cleaner.

- ⚠ Periodic and proper inspection, cleaning and change of elements prolong engine life time and maintain the good performance of engine.

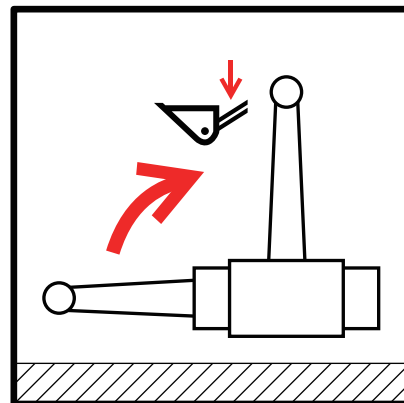


21070FW01

15) MANUAL LOWERING VALVE (item 20)

The warning label is positioned on the left side of the front frame.

- ⚠ Be sure no one is under or near the attachment before lowering the boom.
- ※ Refer to the page 4-30.

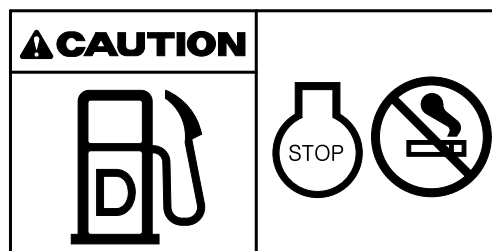


760F0FW12

16) FUELING (item 21)

This warning label is positioned on the left side of the fuel filler neck.

- ⚠ Stop the engine when refueling. All lights or flames shall be kept at a safe distance while refueling.

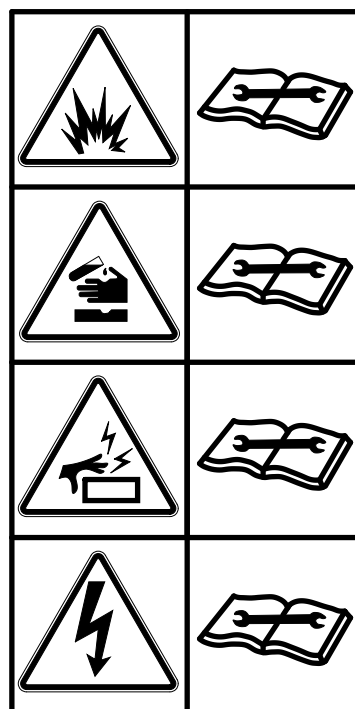


21070FW04

17) BATTERY ACCIDENT (item 22)

This warning label is positioned on the battery box.

- ⚠ Electrolyte containing sulfuric acid cause severe burns. Avoid being in contact with skin, eyes or clothes. In the event of accident flush with sufficient water, call a physician immediately.
- ※ Maintain the electrolyte at the recommended level. Add distilled water to the battery only when starting up, never when shutting down. With electrolytes at proper level, less space may cause the gases to be accumulated in the battery.
- ⚠ Extinguish all smoking materials and open flames before checking the battery.
- ⚠ Do not use matches, lighters or torches as a light source near the battery for the probable presence of explosive gas.
- ⚠ Do not allow unauthorized personnel to change the battery or to use booster cables.
- ⚠ For safety from electric shock, do not battery terminal with a wet hand.

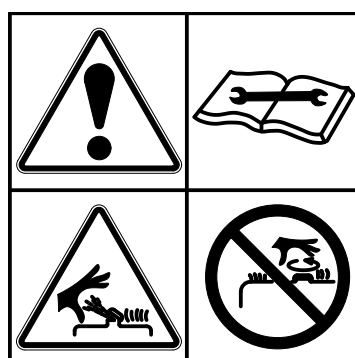


7579A0FW30

18) HYDRAULIC OIL LUB (item 23)

This warning label is positioned on the top of the hydraulic oil tank.

- ※ Do not mix with different brand oils.
- ⚠ Never open the filler cap while engine running or at high coolant temperature.
- ⚠ Loosen the cap slowly and release internal pressure completely.



14070FW08

19) HIGH-PRESSURE HOSE (item 24)

This warning label is positioned on the left side of the front frame.

- ⚠ Escaping fluid under pressure can penetrate the skin causing serious injury.
- ⚠ Avoid the hazard by relieving pressure before disconnecting hydraulic lines or other lines.
- ※ See the maintenance section for details.



14070FW29

20) BIO OIL (item 25)

This warning label is positioned on the right side of the engine hood.

- ⚠ Do not mix with other bio-oil.

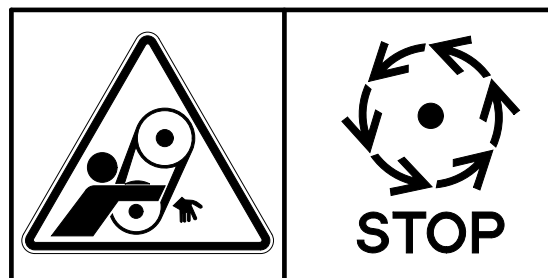


960A0FW11

21) ENGINE DOOR SHEARING (item 27)

This warning label is positioned on the left side of the engine side door.

- ⚠ Don't open the engine door while the engine's running. Stay clear of rotating parts.
- ⚠ Don't touch exhaust pipe or it may cause a severe burn.

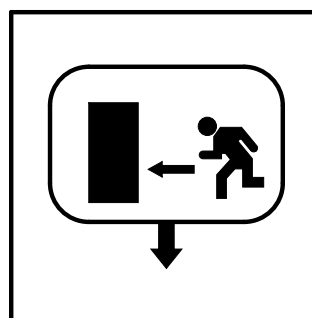


21070FW15

22) ALTERNATE EXIT (item 28)

This warning label is positioned on the right side window of the cab.

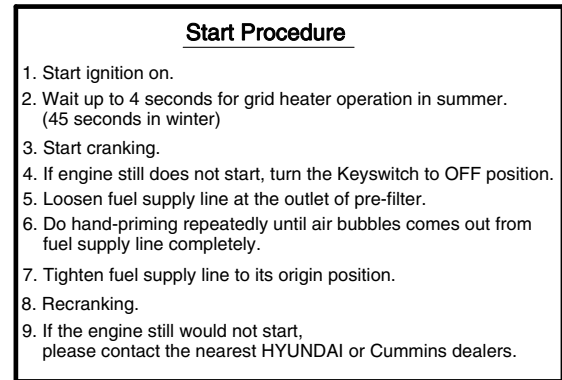
- ※ The right window serves as an alternate exit.
- ※ Refer to the page 3-59.



77070FW12

23) START PROCEDURE (item 32)

This warning label is positioned on the right side window of the cab.



7609A0FW07

24) DIESEL EXHAUST FLUID (item 33)

This warning label is positioned on the right side of the rear frame.

- ※ Fill only the DEF/AdBlue® (Diesel Exhaust Fluid standardized as ISO 22241).

Aqueous urea solution made with 32.5% high-purity urea and 67.5% deionized water.

- ※ Do not fill the diesel fuel.



760F0FW13

25) ACCUMULATOR (item 39)

This warning label is positioned on the accumulator of the solenoid valve.

- ※ The accumulator is filled with high-pressure nitrogen gas, and it is extremely dangerous if it is handled in the wrong way. Always observe the following precautions.

- ⚠ Never make any hole in the accumulator expose it to flame or fire.
- ⚠ Do not weld anything to the accumulator. When carrying out disassembly or maintenance of the accumulator, or when disposing of the accumulator, it is necessary to release the gas from the accumulator. A special air bleed valve is necessary for this operation, so please contact your Hyundai distributor.

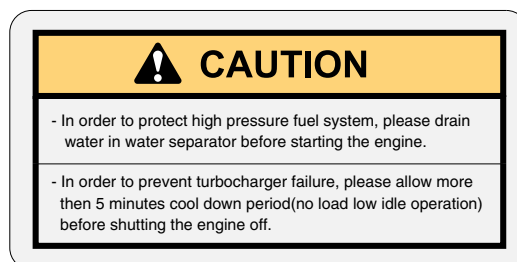


1107A0FW46

26) CAUTION (WATER SEPARATOR, TURBOCHARGER) (item 41)

This warning label is positioned on the right side window of the cab.

- ⚠ In order to protect high pressure fuel system, please drain water in water separator before starting the engine.
- ⚠ In order to prevent turbocharger failure, please allow more than 5 minutes' cool down period (no load low idle operation) before shutting the engine off.

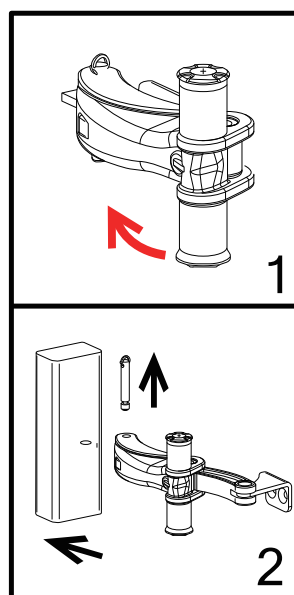


120090SL02

27) TILT HANDLE (item 42)

This warning label is positioned on the right side window of the cab.

- ※ The right side window can be used as an alternate exit.
- ※ Refer to the page 3-59.

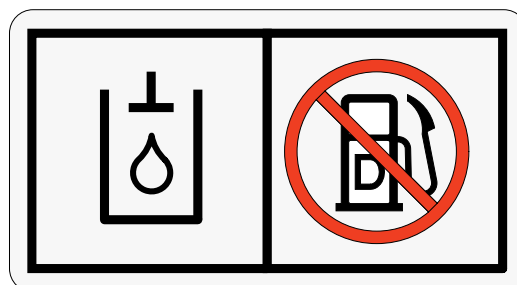


760F0FW14

28) FUEL SHUT OFF (item 43)

This warning label is positioned on the hydraulic tank.

- ※ Fill only the hydraulic oil.
- ※ Do not fill the diesel fuel.
- ⚠ Relieve tank pressure with the engine off by removing the cap slowly to prevent burns from hot oil.

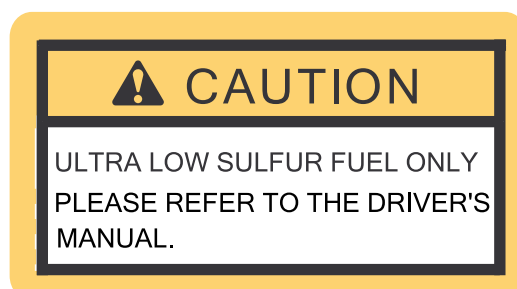


140WH90FW51

29) ULTRA LOW SULFUR DIESEL (item 44)

This warning label is positioned on the left side of the fuel filler neck.

- ※ Use ultra-low sulfur fuel only.
- ※ Ultra-low sulfur fuel sulfur content ≤ 15 ppm
- ※ If ultra-low sulfur diesel is not used, the after-treatment diesel particulate filter can be damaged.



2609A0SL03

30) EMERGENCY FIRE HOLE (item 45)

This warning label is positioned inside of the engine hood inlet cover.

※ Refer to the page 4-29.



955TM0FW20

31) NO STEP (item 46)

This warning label is positioned on the engine hood.

▲ Don't step on the engine hood.



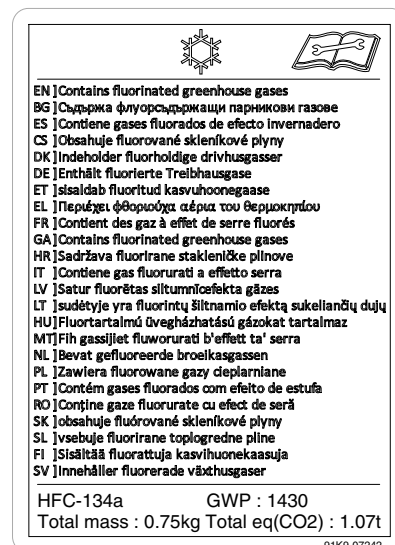
9800FW08

32) REFRIGERANT (item 47)

This warning label is positioned on the right side of engine hood.

▲ Inhaling air conditioner refrigerant gas through a lit cigarette or other smoking method or inhaling fumes released from a flame contacting air conditioner refrigerant gas, can cause bodily harm or death.

※ Refer to the page 6-50.



91K9-07242

33) QUICK COUPLER (item 49)

This warning label is positioned on the middle of the boom.

※ Serious injury or death can result from dropping the bucket.

※ Operating the machine with an attachment switch unlocked or without a safety pin of moving hook can cause the bucket to drop off.

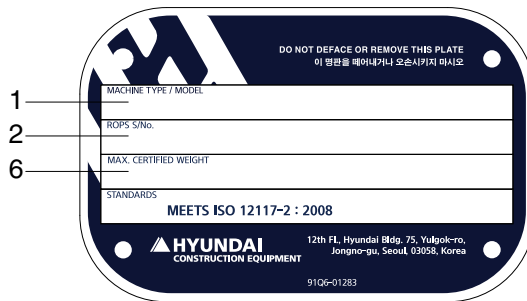


757TM9A0FW30

MACHINE DATA PLATE



FOR EU ONLY



ROPS

76090FW06A

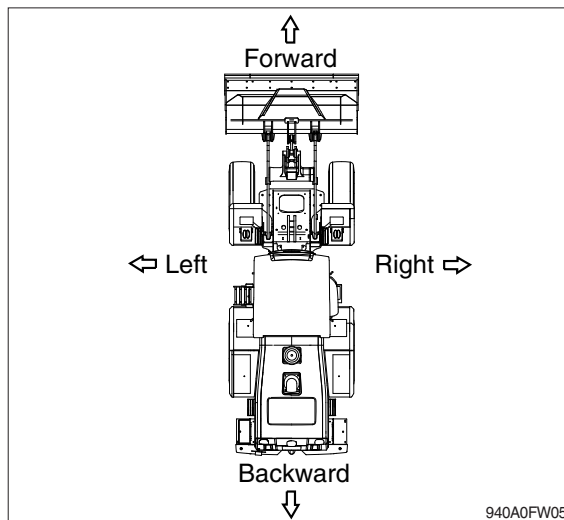
- | | | |
|------------------------|---------------------------------|----------------------------|
| 1 Machine type / model | 2 Product identification number | 3 Engine power |
| 4 Operating mass | 5 Manufacturing year | 6 Maximum certified weight |

※ The product identification number assigned to this particular machine should be used when requesting information or ordering service parts for this machine from your authorized HYUNDAI dealer. The product identification number is also stamped on the frame.

GUIDE

1. DIRECTION

The direction of this manual indicates forward, backward, right, and left when the machine is in the traveling direction.

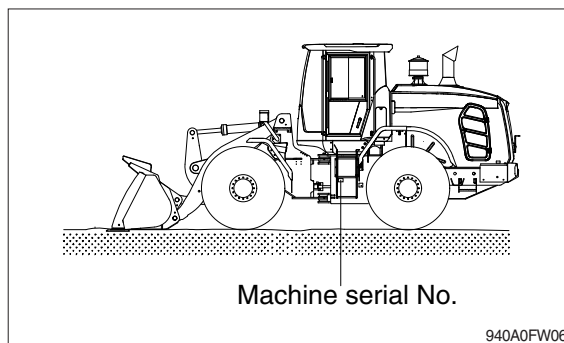


2. SERIAL NUMBER

Inform following when you order parts or the machine is out of order.

1) MACHINE SERIAL NUMBER

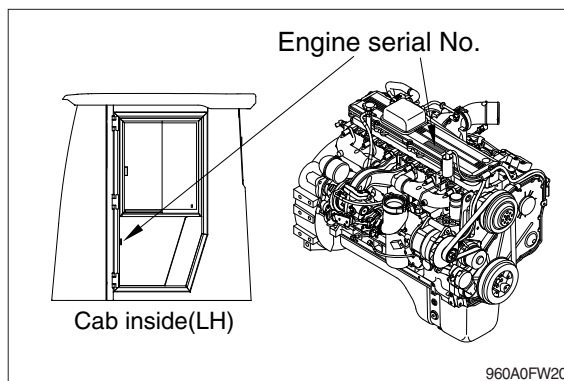
The numbers are located on the left side of the rear frame.



2) ENGINE SERIAL NUMBER

The numbers are located on the engine nameplate.

It is also located on the left side frame of the cab inside.



3. INTENDED USE

This machine is designed to be used mainly for the following work.

- Excavating work - Leveling work
- Loading work - Transporting work

※ Please refer to the section 4 (efficient working method) further details.

4. SYMBOLS

▲ This Danger label indicates a high level of risk. Neglecting the warning may result in serious injury or death.

△ This Warning label indicates a medium level of risk. Neglecting the warning may result in serious injury or death.

※ This label indicate useful information for the operator.