CEAM009602

# Operation & Maintenance Manual

KOMATSU®

# WA400-5L

## WHEEL LOADER

SERIAL NUMBERS WA400-5L A40001 and up

ENGINE 6D114E-2

March 2016

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# CONTENTS

## INTRODUCTION

FOREWORD . . . . . 0-2
SAFETY INFORMATION . . . . . 0-3
APPROVED AND NON-APPROVED USES . . . . . 0-4
NON-APPROVED . . . . . 0-4
PRODUCT IDENTIFICATION . . . . . 0-5
MACHINE SERIAL NUMBER . . . . . 0-5
ENGINE SERIAL NUMBER AND EMISSION LABEL . . . . . 0-6
SERVICE METER LOCATION . . . . . 0-6
SERIAL NUMBERS AND DEALER INFORMATION . . . . . 0-7
CONTENTS . . . . . 0-8

## SAFETY

GENERAL SAFETY RULES AND PRECAUTIONS . . . . . 1-2
GENERAL SAFETY RULES . . . . . 1-2
SAFETY FEATURES . . . . . 1-3
PERSONAL PROTECTIVE EQUIPMENT . . . . . 1-3
UNAUTHORIZED MODIFICATIONS . . . . . 1-4
LEAVING OPERATOR'S COMPARTMENT . . . . . 1-4
MOUNTING AND DISMOUNTING . . . . . 1-5
WASTE HANDLER APPLICATIONS . . . . . 1-5
FIRE PREVENTION FOR FUEL AND OIL . . . . . 1-6
DUST HAZARD PRECAUTIONS . . . . . 1-6
CRUSH OR PINCH POINT DANGERS . . . . . 1-7
FIRE EXTINGUISHER AND FIRST AID KIT . . . . . 1-7
INSIDE OPERATOR'S COMPARTMENT . . . . . 1-8
PRECAUTIONS WHEN USING ROPS . . . . . 1-8
PRECAUTIONS FOR ATTACHMENTS . . . . . 1-8
STARTING YOUR WORK OPERATIONS . . . . . 1-9
WORK SITE HAZARDS . . . . . 1-9
AVOIDING DANGEROUS SITUATIONS . . . . . 1-9
WORKING CLEARANCES . . . . . 1-11
RULES FOR ROAD TRAVEL . . . . . 1-12
TRAVELING IN REVERSE . . . . . 1-12
TRAVELING ON ICY OR SNOW-COVERED SURFACES . . . . . 1-12
WORKING ON LOOSE OR UNSTABLE GROUND . . . . . 1-12
TRAVEL ON SLOPES . . . . . 1-13
PARKING THE MACHINE . . . . . 1-14
PRECAUTIONS DURING MAINTENANCE OPERATIONS . . . . . 1-15
WARNING TAGS . . . . . 1-15
EQUIPMENT STORAGE . . . . . 1-15
WORKING UNDER THE MACHINE . . . . . 1-16
USING DROP LAMPS . . . . . 1-16
KEEPING THE MACHINE CLEAN . . . . . 1-17
RUNNING THE MACHINE DURING MAINTENANCE . . . . . 1-17



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RULES FOR REFUELING THE MACHINE ..... 1-18
COOLING SYSTEM PRECAUTIONS ..... 1-18
BATTERY PRECAUTIONS ..... 1-19
STARTING THE MACHINE ..... 1-19
HIGH PRESSURE HOSES ..... 1-20
HIGH TEMPERATURES AREAS ..... 1-20
DISPOSAL OF WASTE MATERIALS ..... 1-20
INFLATING TIRES ..... 1-21
ACCUMULATOR ..... 1-21
CRITICAL PARTS ..... 1-21
VIBRATIONS TO WHICH THE OPERATOR IS EXPOSED ..... 1-21
SAFETY AND WARNING DECALS ..... 1-22
LOCATION OF THE SAFETY DECALS ..... 1-22
LOCATION OF SAFETY LABELS ..... 1-23
SAFETY LABELS ..... 1-23

## OPERATION

GENERAL VIEW OF MACHINE ..... 2-2
OUTSIDE VIEW OF THE MACHINE ..... 2-2
INSIDE VIEW OF THE CAB ..... 2-3
DESCRIPTION OF ALERTS, GAUGES AND SWITCHED SYSTEMS ..... 2-4
INSTRUMENT BEZEL ..... 2-4
SWITCH PANELS ..... 2-5
DESCRIPTION OF ALERTS, GAUGES AND MONITOR SYSTEM ..... 2-6
INSTRUMENT BEZEL ..... 2-6
TYPES OF WARNING ..... 2-7
MACHINE ELECTRONIC MONITORING DISPLAY ..... 2-8
MONITOR MODE SELECTOR SWITCHES ..... 2-8
MODE SELECTOR SWITCH 1 ..... 2-9
MODE SELECTOR SWITCH 2 ..... 2-9
MONITOR DISPLAY INFORMATION ..... 2-9
HOUR METER AND ODOMETER DISPLAY ..... 2-9
ADJUSTING MONITOR BRIGHTNESS ..... 2-10
PROGRAMMING TELEPHONE NUMBER ..... 2-10
ACTION CODE DISPLAY ..... 2-10
FAILURE CODE DISPLAY ..... 2-11
SERVICE DISPLAY ..... 2-12
SELECTING LANGUAGE ..... 2-13
EMERGENCY STOP WARNING SYSTEM ..... 2-14
BRAKE PRESSURE WARNING LAMP ..... 2-14
ENGINE OIL PRESSURE WARNING LAMP ..... 2-15
BATTERY CHARGE WARNING LAMP ..... 2-15
STEERING OIL PRESSURE WARNING LAMP ..... 2-15
CAUTION ALERT WARNING SYSTEM ..... 2-16
AXLE OIL TEMPERATURE CAUTION LAMP ..... 2-16
TORQUE CONVERTER CAUTION LAMP ..... 2-17
COOLANT TEMPERATURE CAUTION LAMP ..... 2-17
HYDRAULIC OIL TEMPERATURE CAUTION LAMP ..... 2-17



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FUEL LEVEL CAUTION LAMP ..... 2-17
INSPECTION AND MAINTENANCE ALERT WARNING SYSTEM ..... 2-18
ENGINE OIL LEVEL CAUTION LAMP ..... 2-18
RADIATOR COOLANT LEVEL CAUTION LAMP ..... 2-19
AIR CLEANER CLOGGING CAUTION LAMP ..... 2-19
MAINTENANCE CAUTION LAMP ..... 2-19
MODE ALERT LAMPS ..... 2-20
PARKING BRAKE PILOT LAMP ..... 2-20
COOLING FAN REVERSE ROTATION PILOT LAMP ..... 2-21
EMERGENCY STEERING PILOT LAMP ..... 2-21
OUTPUT MODE PILOT LAMP (POWER MODE) ..... 2-21
PREHEATING PILOT LAMP ..... 2-22
JOYSTICK PILOT LAMP ..... 2-22
SHIFT INDICATOR ..... 2-22
AUTO-SHIFT PILOT LAMP ..... 2-22
LOCKUP PILOT LAMP ..... 2-23
SHIFT HOLD PILOT LAMP ..... 2-23
SHIFT LEVER POSITION PILOT LAMP ..... 2-23
TURN SIGNAL PILOT LAMP ..... 2-23
HEAD LAMP HIGH BEAM PILOT LAMP ..... 2-24
GAUGE DISPLAY ..... 2-25
TORQUE CONVERTER OIL TEMPERATURE GAUGE ..... 2-25
ENGINE TEMPERATURE GAUGE ..... 2-26
HYDRAULIC TEMPERATURE GAUGE ..... 2-26
FUEL GAUGE ..... 2-26
SPEEDOMETER ..... 2-26
METER DISPLAY PILOT LAMP ..... 2-27
MACHINE MONITOR ..... 2-27
DISPLAYING ODOMETER ..... 2-27
RESET FOR FILTER, OIL REPLACEMENT TIME ..... 2-27
ENTERING A TELEPHONE NUMBER ..... 2-28
SELECTING A LANGUAGE ..... 2-29
ADJUSTING MONITOR BRIGHTNESS ..... 2-30
MACHINE SWITCHES AND CONTROLS ..... 2-31
SWITCH LOCATION ..... 2-31
IGNITION SWITCH ..... 2-32
POWER MODE SELECTOR SWITCH ..... 2-32
TRANSMISSION MODE SELECTOR SWITCH ..... 2-33
TRANSMISSION CUT-OFF SWITCH ..... 2-33
TRANSMISSION CUT-OFF SET SWITCH ..... 2-34
LAMP SWITCH ..... 2-34
TURN SIGNAL LEVER ..... 2-34
DIMMER SWITCH ..... 2-35
HORN BUTTON ..... 2-35
HAZARD LAMP SWITCH ..... 2-35
PARKING BRAKE SWITCH ..... 2-35
FRONT WORKING LAMP SWITCH ..... 2-36
REAR WORKING LAMP SWITCH ..... 2-36
MONITOR PANEL MODE SELECTOR SWITCH 1 ..... 2-37



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## SAFETY LOCK LEVER

**⚠ WARNING**

**Before getting up from the operator's seat, set the safety lock lever securely to the LOCK position. If the safety lock lever is not at the LOCK position, and work equipment control lever (A) is touched by mistake, it may lead to a serious accident.**

**If the safety lock lever is not placed securely at the LOCK position, the work equipment may move, and this may lead to a serious accident or personal injury. Check that the lever is in the position shown in the diagram.**

**When pulling up or pushing down the safety lock lever, be careful not to touch work equipment control lever (A).**

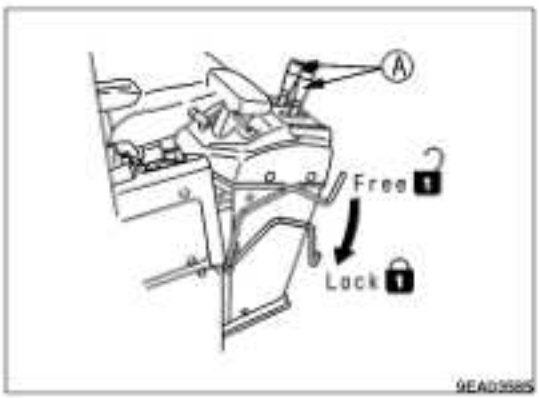
This lever (4) is a locking device for the work equipment control lever.

Push the safety lock lever down to lock it.

***Remark***

*This lever electrically locks the hydraulic circuit for the work equipment, so if it is at the LOCK position, the work equipment will not move even when work equipment control lever (A) is operated.*

*If the work equipment control lever is operated when this lever is at the LOCK position, the central warning lamp lights up and the alarm buzzer sounds. At the same time, "E00 WORK LEVER POSI" is displayed on the character display.*

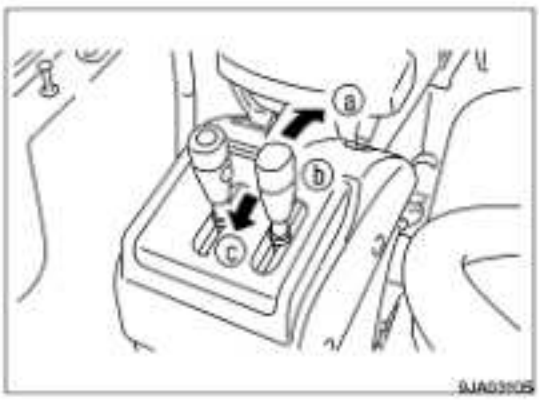



## BUCKET CONTROL LEVER

Lever (5) operates the bucket.

Position (a): TILT

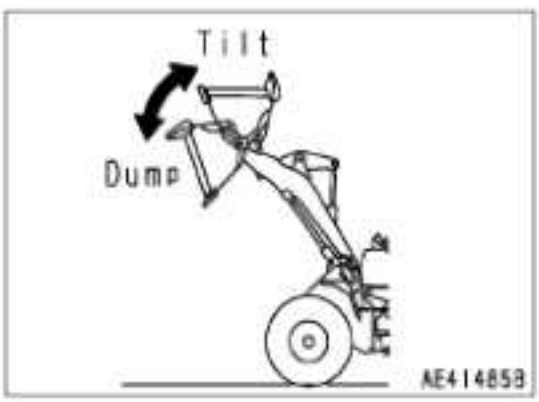
When the bucket control lever is pulled further from the TILT position, the lever is stopped in this position until the bucket reaches the preset position of the positioner, and the lever is returned to the HOLD position.




Position (b): HOLD

The bucket is kept in the same position.

Position (c): DUMP






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## GREASE

- Grease is used to prevent twisting and noise at the joints.
- The grease fittings not included in the MAINTENANCE section are grease fittings for overhaul, so they do not need grease.
- If any part becomes stiff or makes noise after being used for long time, apply grease.
- Always wipe off all of the old grease that is pushed out when greasing.
- Be particularly careful to wipe off the old grease in places where sand or dirt sticking in the grease would cause wear of the rotating parts.

# PERFORMING KOWA (KOMATSU OIL WEAR ANALYSIS)

KOWA (Komatsu Oil Wear Analysis) is a maintenance service that makes it possible to prevent machine failures and down-time. With KOWA, the oil is periodically sampled and analyzed. This enables early detection of wear of the machine drive parts and other abnormalities.

Periodic use of KOWA makes the following possible:

- It enables the accurate understanding of the machine condition by utilizing our long experience and accumulated data base.
- The report on the result of analysis and recommendation will be delivered to the customer soon at low cost (only the actual expenses will be charged). Use of this service is strongly recommended.



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## WORK EQUIPMENT

| Bucket | | General Purpose Bolt-on Cutting Edge | | Excavating Bolt-on Cutting Edge | | Light Material Bolt-on Cutting Edge | |
|---|---|---|---|---|---|---|---|
| Bucket capacity | Heaped | 3.5m$^3$ | 4.6yd$^3$ | 3.1m$^3$ | 4.1yd$^3$ | 4.3m$^3$ | 5.6yd$^3$ |
| | Struck | 3.3m$^3$ | 4.3yd$^3$ | 2.6m$^3$ | 3.4yd$^3$ | 3.7m$^3$ | 4.8yd$^3$ |
| Bucket width | | 2905mm | 9'6" | 2905mm | 9'6" | 2905mm | 9'6" |
| Bucket weight | | 1697kg | 3,741lb | 2905mm | 9'6" | 1835kg | 4,045lb |
| Static tipping load | Straight | 15207kg | 33,587lb | 15155kg | 33,41lb | 15025mm | 33,124lb |
| | 40° full turn | 13385kg | 29,509lb | 13305kg | 29,333lb | 13,175kg | 29,046lb |
| Dumping clearances maximum height and 45° dump angle | | 3015mm | 9'11" | 3015mm | 9'11" | 2885mm | 9'5" |
| Reach at (7') 2130mm 45° dump angle | | 1785mm | 5'10" | 1745mm | 5'9" | 1850mm | 6'1" |
| Reach at maximum height 45° dump angle | | 1150mm | 3'9" | 1070mm | 3'6" | 1275mm | 4'1" |
| Reach with arm horizontal and bucket level | | 2640mm | 8'8" | 2535mm | 8'4" | 2775mm | 9'1" |
| Operating height Fully raised | | 5710mm | 18'9" | 5540mm | 18'2" | 5790mm | 19'0" |
| Overall length Bucket on ground | | 8265mm | 27'1" | 8155mm | 26'9" | 8450mm | 27'9" |
| Loader clearance circle | | 13160mm | 43'2" | 13240mm | 43'5" | 13290mm | 43'7" |
| Digging depth | 0° | 90mm | 3.5" | 55mm | 2.2" | 55mm | 2.2" |
| | 10° | 290mm | 11'4" | 270mm | 10.6" | 325mm | 1.1" |
| Breakout force | | 148kN | 33,290lb | 163kN | 36,685lb | 130kN | 29,244lb |
| Operating weight | | 18555kg | 40'907lb | 18635kg | 41083lb | 17865kg | 41,370lb |

## WEIGHT CHANGES

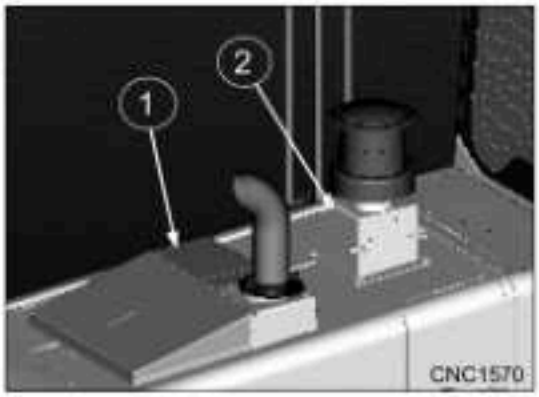
| Tires | Operating weight | | Tipping load straight | | Tipping load full turn | |
|---|---|---|---|---|---|---|
| | kg | lb | kg | lb | kg | lb |
| Remove ROPS cab | -660 | -1455 | -650 | -1433 | -625 | -1378 |
| Install ROPS canopy | +430 | +950 | +425 | +937 | +410 | +904 |
| Remove additional counterweight | -325 | -717 | -885 | -1,951 | -755 | -1,661 |



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★ Air Cleaner and Exhaust area

Inspect areas (1) and (2) for excessive build up of trash.




After cleaning grease the machine to push any water out of the pivot point connections.
Always reinstall all protective covers.

## FAN SOLENOID VALVE

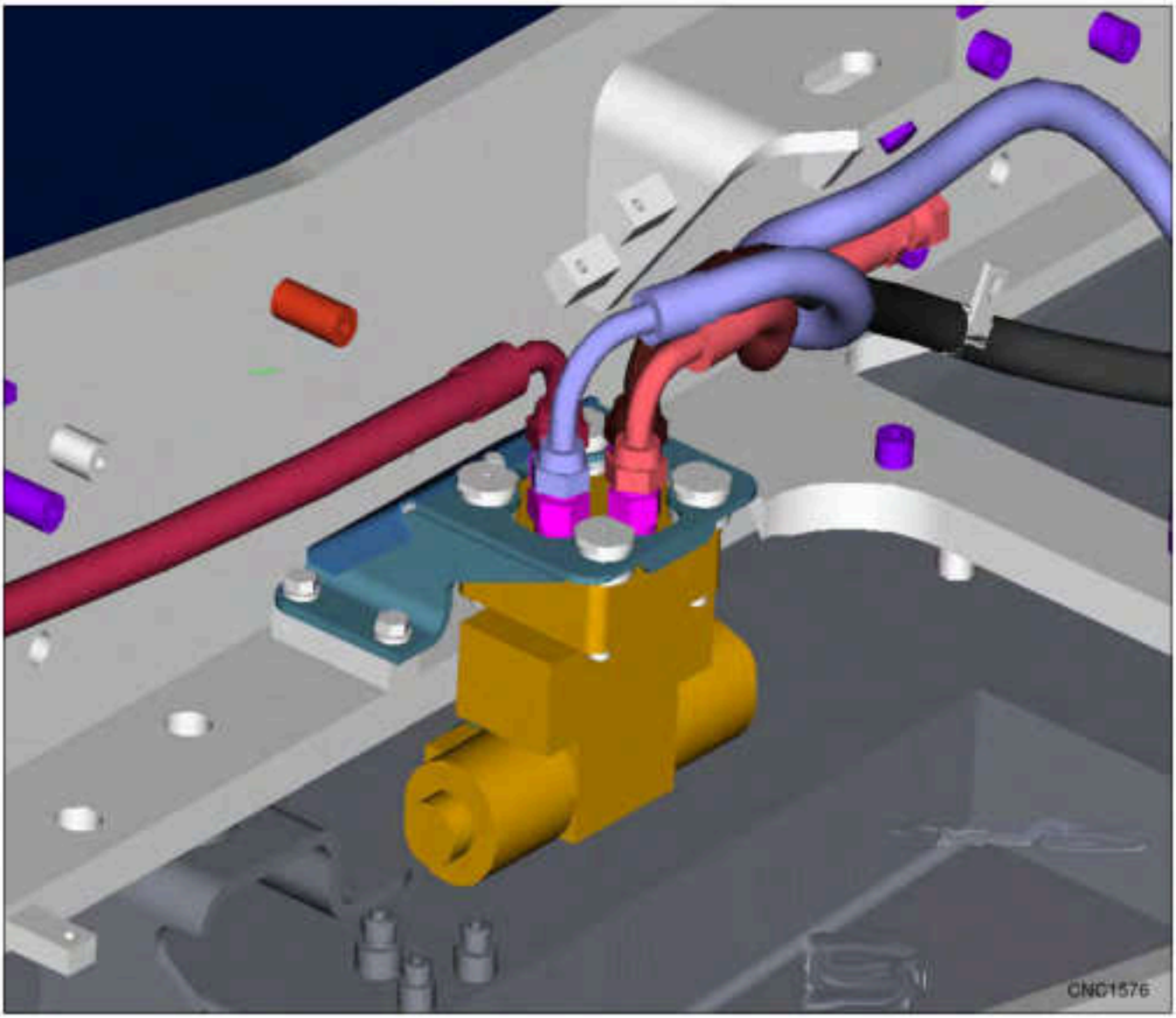
★ Waste Handler

When cleaning the machine, this area should be protected from high pressure water and soaps. Due to the location and design of the fan solenoid valve damage or premature failure may result if high pressure water or soaps come in contact with the solenoid valve assembly. Use only mild soaps and low pressure water to clean this valve.

***Remark***

*This valve area should be cleaned every 250 hours of operation.*

When washing around this area it is advised to protect this component with a plastic cover.

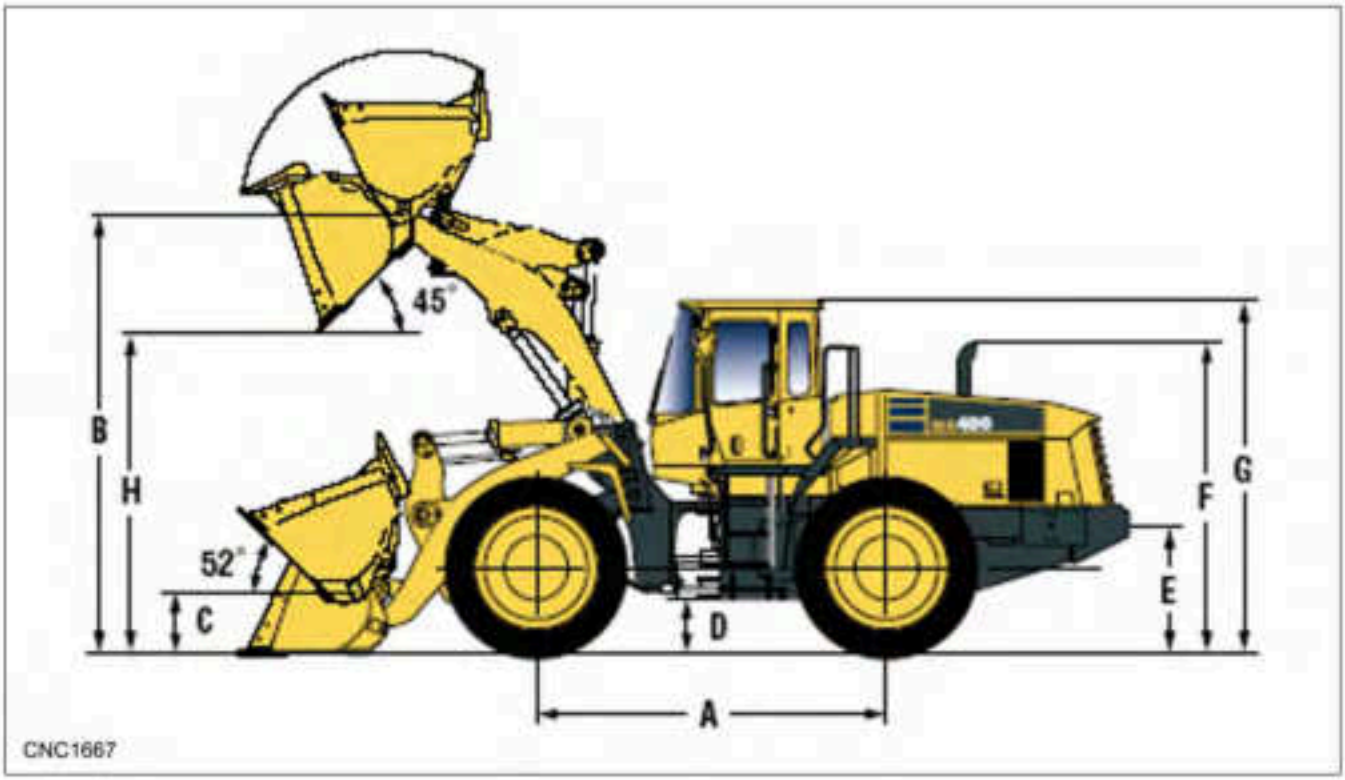





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# SPECIFICATIONS

## MACHINE DIMENSIONS AND WEIGHTS




## TIRES

| | Tire Specifications | mm | (in) |
|---|---|---|---|
| | Tread | 2160 | 7'1" |
| | Width over tires | 2780 | 9'1" |
| A | Wheel base | 3300 | 10'10" |
| B | Hinge pin height at Max. height | 4165 | 13'8" |
| C | Hinge pin height at carry position | 520 | 1'8" |
| D | Ground clearance | 455 | 1'6" |
| E | Hitch point height | 1150 | 3'9" |
| F | Overall height, top of stack | 2950 | 9'8" |
| G | Overall height ROPS cab | 3380 | 11'11" |

★ Measured with 23.5-25-16PR (L3) tires



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