TEN00095-01

Operation & Maintenance Manual

MOTOR GRADER

GALEO

GD655-3C

SERIAL NUMBERS 51001 and up

WARNING

Unsafe use of this machine may cause serious injury or death. Operators and maintenance personnel must read this manual before operating or maintaining this machine. This manual should be kept near the machine for reference and periodically reviewed by all personnel who will come into contact with it.

NOTICE

Komatsu has Operation & Maintenance Manuals written in some other languages. If a foreign language manual is necessary, contact your local distributor for availability.

KOMATSU®

MidWestTech | Komatsu Galeo GD655-3C Motor Grader Operation & Maintenance Manual... Order the manual at mid-west-tech.com >

CONTENTS

FOREWORD ---- 1- 1
FOREWORD ---- 1- 2
SAFETY INFORMATION ---- 1- 5
INTENDED USE ---- 1- 7
DIRECTIONS OF MACHINE ---- 1- 7
LOCATION OF PLATES, TABLE TO ENTER SERIAL NO. AND DISTRIBUTOR ---- 1- 8
MACHINE SERIAL NO. PLATE POSITION ---- 1- 8
ENGINE SERIAL NO. PLATE POSITION ---- 1- 8
SERVICE METER POSITION ---- 1- 9
TABLE TO ENTER SERIAL NO. AND DISTRIBUTOR ---- 1- 9
SAFETY ---- 2- 1
SAFETY INFORMATION ---- 2- 2
SAFETY LABELS ---- 2- 4
POSITION FOR ATTACHING SAFETY LABELS ---- 2- 5
SAFETY LABELS ---- 2- 6
GENERAL PRECAUTIONS ---- 2- 11
PRECAUTIONS DURING OPERATION ---- 2- 20
STARTING ENGINE ---- 2- 20
OPERATION ---- 2- 22
TRANSPORTATION ---- 2- 26
BATTERY ---- 2- 27
TOWING ---- 2- 29
PRECAUTIONS FOR MAINTENANCE ---- 2- 30
PRECAUTIONS WITH TIRES ---- 2- 36
OPERATION ---- 3- 1
GENERAL VIEW ---- 3- 2
GENERAL VIEW OF MACHINE ---- 3- 2
GENERAL VIEW OF CONTROLS AND GAUGES ---- 3- 3
EXPLANATION OF COMPONENTS ---- 3- 6
METERS AND LAMPS ---- 3- 6
SWITCHES ---- 3- 13
CONTROL LEVERS, PEDALS ---- 3- 24
DUST INDICATOR ---- 3- 33
ARTICULATE LOCK PIN ---- 3- 33
FUSE BOX ---- 3- 33
OPERATION ---- 3- 35
CHECK BEFORE STARTING ENGINE ---- 3- 35
STARTING ENGINE ---- 3- 47
OPERATIONS, CHECKS AFTER STARTING ENGINE ---- 3- 51
STOPPING ENGINE ---- 3- 53
CHECK AFTER STOPPING ENGINE ---- 3- 53
TRAVELING POSTURE FOR MACHINE ---- 3- 54
MOVING MACHINE OFF (FORWARD, REVERSE, SHIFTING GEAR), STOPPING ---- 3- 55
TURNING MACHINE ---- 3- 59
OPERATING WORK EQUIPMENT ---- 3- 62
WORK WHICH CAN BE CARRIED OUT USING A MOTOR GRADER ---- 3- 68
PRECAUTIONS WHEN OPERATION ---- 3- 89
ADJUSTING WORK EQUIPMENT POSTURE ---- 3- 93
PARKING MACHINE ---- 3-103

MidWestTech | Komatsu Galeo GD655-3C Motor Grader Operation & Maintenance Man... Order the manual at mid-west-tech.com >

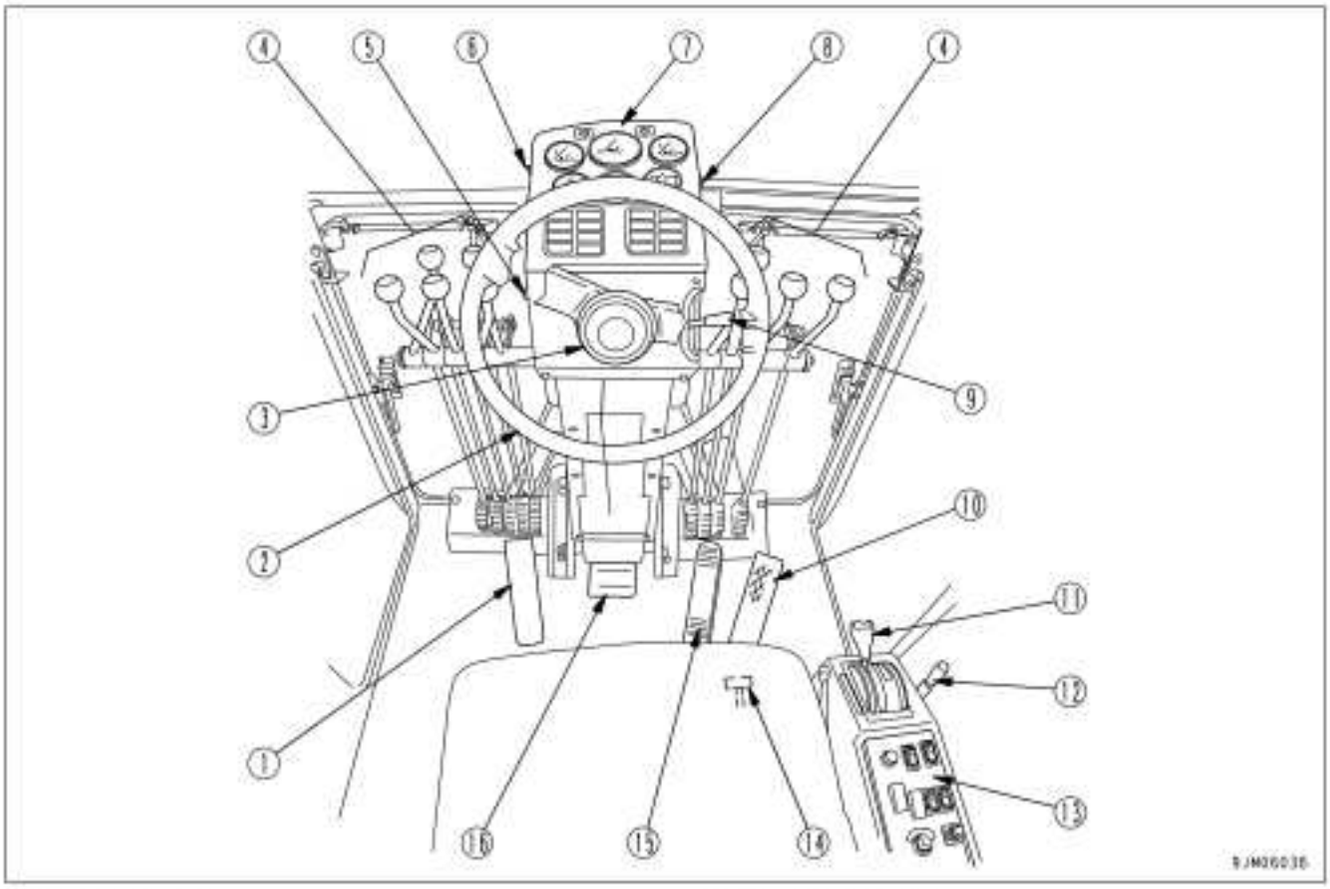
CHECKS AFTER COMPLETION OF OPERATION ---- 3-104
LOCKING ---- 3-105
HANDLING THE TIRES ---- 3-105
TRANSPORTATION ---- 3-106
LOADING, UNLOADING WORK ---- 3-106
PRECAUTIONS FOR LOADING ---- 3-107
COLD WEATHER OPERATION ---- 3-108
PRECAUTIONS FOR LOW TEMPERATURE ---- 3-108
CAUTIONS AFTER COMPLETION OF WORK ---- 3-109
AFTER COLD WEATHER ---- 3-109
LONG-TERM STORAGE ---- 3-110
BEFORE STORAGE ---- 3-110
DURING STORAGE ---- 3-110
AFTER STORAGE ---- 3-110
TROUBLESHOOTING ---- 3-111
AFTER RUNNING OUT OF FUEL ---- 3-111
WHEN LEANING PIPING IS DAMAGED ---- 3-112
TOWING THE MACHINE ---- 3-113
IF BATTERY IS DISCHARGED ---- 3-115
OTHER TROUBLE ---- 3-118
MAINTENANCE ---- 4- 1
GUIDES TO MAINTENANCE ---- 4- 2
OUTLINES OF SERVICE ---- 4- 4
HANDLING OIL, FUEL, COOLANT, AND PERFORMING OIL CLINIC ---- 4- 4
RELATING TO ELECTRIC SYSTEM ---- 4- 7
WEAR PARTS ---- 4- 8
WEAR PARTS LIST ---- 4- 8
USE OF FUEL, COOLANT AND LUBRICANTS ACCORDING TO AMBIENT TEMPERATURE ---- 4- 9
STANDARD TIGHTENING TORQUES FOR BOLTS AND NUTS ---- 4- 13
TORQUE LIST ---- 4- 13
PERIODIC REPLACEMENT OF CRITICAL PARTS ---- 4- 15
CRITICAL PARTS ---- 4- 15
MAINTENANCE SCHEDULE CHART ---- 4- 16
MAINTENANCE SCHEDULE CHART ---- 4- 16
SERVICE PROCEDURE ---- 4- 18
INITIAL 250 HOURS SERVICE (only after the first 250 hours) ---- 4- 18
WHEN REQUIRED ---- 4- 19
CHECK BEFORE STARTING ---- 4- 32
EVERY 50 HOURS SERVICE ---- 4- 33
EVERY 250 HOURS SERVICE ---- 4- 34
EVERY 500 HOURS SERVICE ---- 4- 49
EVERY 1000 HOURS SERVICE ---- 4- 55
EVERY 2000 HOURS SERVICE ---- 4- 63
EVERY 4000 HOURS SERVICE ---- 4- 69
EVERY 8000 HOURS SERVICE ---- 4- 71
SPECIFICATIONS ---- 5- 1
SPECIFICATIONS ---- 5- 2
ATTACHMENTS, OPTIONS ---- 6- 1
HANDLING BLADE ACCUMULATOR ---- 6- 2
FEATURES OF BLADE ACCUMULATOR ---- 6- 2

MidWestTech | Komatsu Galeo GD655-3C Motor Grader Operation & Maintenance Man... Order the manual at mid-west-tech.com >

METHOD OF OPERATING BLADE ACCUMULATOR ---- 6- 3
AM/FM RADIO-CASSETTE STEREO ---- 6- 4
EXPLANATION OF COMPONENTS ---- 6- 4
METHOD OF OPERATION ---- 6- 9
PRECAUTIONS WHEN USING ---- 6- 12
AIR CONDITIONER ---- 6- 13
LOCATIONS AND FUNCTIONS OF CONTROL PANEL ---- 6- 13
METHOD OF OPERATION ---- 6- 15
PRECAUTIONS WHEN USING ---- 6- 15
TESTING AND MAINTENANCE ---- 6- 15
HANDLING AIR-SUSPENSION SEAT ---- 6- 16
ADJUST OPERATOR'S SEAT ---- 6- 16
HANDLING MACHINES EQUIPPED WITH KOMTRAX ---- 6- 18
BASIC PRECAUTIONS ---- 6- 18
INDEX ---- 7- 1

MidWestTech | Komatsu Galeo GD655-3C Motor Grader Operation & Maintenance Man... Order the manual at mid-west-tech.com >

GENERAL VIEW OF CONTROLS AND GAUGES



(1) Inching pedal
(2) Steering wheel
(3) Horn button
(4) Work equipment control lever
(5) Starting aid switch
(6) Dimmer switch
(7) Machine monitor
(8) Differential lock switch (if equipped)
(9) Turn signal lever
(10) Accelerator pedal
(11) Gearshift lever
(12) Fuel control lever
(13) Right side panel
(14) Decelerator pedal
(15) Brake pedal
(16) Steering console tilt pedal

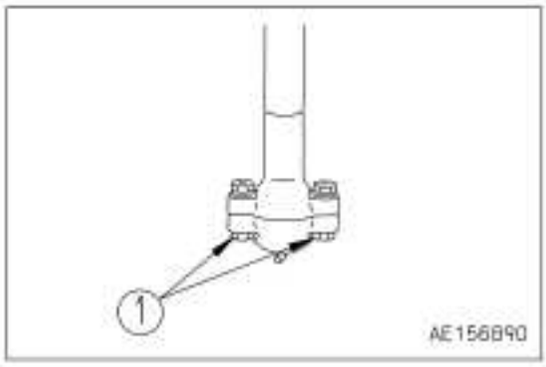
MidWestTech | Komatsu Galeo GD655-3C Motor Grader Operation & Maintenance Man... Order the manual at mid-west-tech.com >

CHECK BALL JOINT CLEARANCE, ADJUST

Check and adjust all locations with ball joints at the links of the work equipment.
Check for any play in the ball joint, and if the axial play is more than 1 mm (0.039 in), adjust as follows.

- Prepare a thickness gauge

1. Remove all the shims from the ball joint.
2. Tighten the caps with bolts (1) to make the same clearance on the left and right.
3. Measure the clearance with a thickness gauge, then insert one shim more than this dimension, and tighten the cap.
   Thickness of one shim : 0.2 mm (0.008 in),
   0.5 mm (0.020 in)

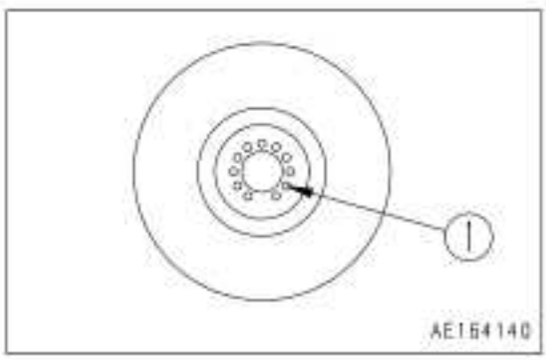


CHECK AND TIGHTEN WHEEL HUB NUT AND HUB BOLT

NOTICE

Loose wheel hub nuts and hub bolts (1) will result in shortened life of tires or other troubles.

1. Carefully check for loose bolts (1).
   When checking for loose borts (1), always turn the borts (1) in the tightening direction to check.
   Tightening torque: 610 to 765 N·m
   (62.5 to 78.0 kgf·m, 452.1 to 564.2 lbft)



2. If a hub bolt is broken, replace all the hub bolts.

CHECKING WHEEL RIM, LOCK RING AND SIDE RING FOR CORROSION AND WEAR

If the wheel rim, lock ring and side ring are heavily corroded, ask the tire manufacturer or your Komatsu distributor for inspection.

MidWestTech | Komatsu Galeo GD655-3C Motor Grader Operation & Maintenance Man... Order the manual at mid-west-tech.com >

EVERY 8000 HOURS SERVICE

Maintenance for every 50, 250, 500, 1000, 2000 and 4000 hours service should be carried out at the same time.

REPLACE INJECTOR NOZZLE TIP

Ask your Komatsu distributor to carry out this work.

REPLACE HIGH-PRESSURE PIPING CLAMP

Ask your Komatsu distributor to carry out this work.

REPLACE FUEL SPRAY PREVENTION CAP

Ask your Komatsu distributor to carry out this work.

MidWestTech | Komatsu Galeo GD655-3C Motor Grader Operation & Maintenance Man... Order the manual at mid-west-tech.com >