TEN00150-05

Operation & Maintenance Manual

MOTOR GRADER **GD675-3E0**

SERIAL NUMBERS 51301 and up

ecot3

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 GD675-3E0 Motor Grader Operation & Maintenance Manual | Pub... Order the manual at mid-west-tech.com >

CONTENTS

FOREWORD ---- 1- 1
BEFORE READING THIS MANUAL ---- 1- 2
SAFETY INFORMATION ---- 1- 3
INTENDED USE ---- 1- 4
USE OF MACHINE ---- 1- 4
DIRECTIONS OF MACHINE ---- 1- 4
VISIBILITY FROM OPERATOR'S SEAT ---- 1- 5
LOCATION OF PLATES, TABLE TO ENTER SERIAL NO. AND DISTRIBUTOR ---- 1- 6
PRODUCT IDENTIFICATION NUMBER (PIN)/MACHINE SERIAL NO. PLATE ---- 1- 6
EPA REGULATIONS, ENGINE NUMBER PLATE ---- 1- 6
SERVICE METER POSITION ---- 1- 7
TABLE TO ENTER SERIAL NO. AND DISTRIBUTOR ---- 1- 7
SAFETY ---- 2- 1
SAFETY INFORMATION ---- 2- 2
SAFETY LABELS ---- 2- 5
POSITION FOR ATTACHING SAFETY LABELS ---- 2- 6
SAFETY LABELS ---- 2- 7
GENERAL PRECAUTIONS COMMON TO OPERATION AND MAINTENANCE ---- 2- 12
PRECAUTIONS BEFORE STARTING OPERATION ---- 2- 12
PREPARATIONS FOR SAFE OPERATION ---- 2- 12
FIRE PREVENTION ---- 2- 14
PRECAUTIONS WHEN GETTING ON OR OFF MACHINE ---- 2- 15
DO NOT GET CAUGHT IN WORK EQUIPMENT ---- 2- 17
PRECAUTIONS RELATED TO PROTECTIVE STRUCTURES ---- 2- 17
UNAUTHORIZED MODIFICATION ---- 2- 18
PRECAUTIONS RELATED TO ATTACHMENTS AND OPTIONS ---- 2- 18
PRECAUTIONS WHEN RUNNING ENGINE INSIDE BUILDING ---- 2- 18
PRECAUTIONS FOR OPERATION ---- 2- 19
PRECAUTIONS FOR JOBSITE ---- 2- 19
STARTING ENGINE ---- 2- 21
OPERATION ---- 2- 24
TRANSPORTATION ---- 2- 28
TOWING ---- 2- 29
PRECAUTIONS FOR MAINTENANCE ---- 2- 30
PRECAUTIONS BEFORE STARTING INSPECTION AND MAINTENANCE ---- 2- 30
PRECAUTIONS FOR INSPECTION AND MAINTENANCE ---- 2- 35
TIRES ---- 2- 40
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
MONITOR PANEL ---- 3- 6
OTHER FUNCTIONS OF MACHINE MONITOR ---- 3- 24
SWITCHES ---- 3- 29
CONTROL LEVERS, PEDALS ---- 3- 43
DUST INDICATOR ---- 3- 53
ARTICULATE LOCK PIN ---- 3- 53
FUSE BOX ---- 3- 54

MidWestTech | Komatsu GD675-3E0 Motor Grader Operation & Maintenance Manual |... Order the manual at mid-west-tech.com >

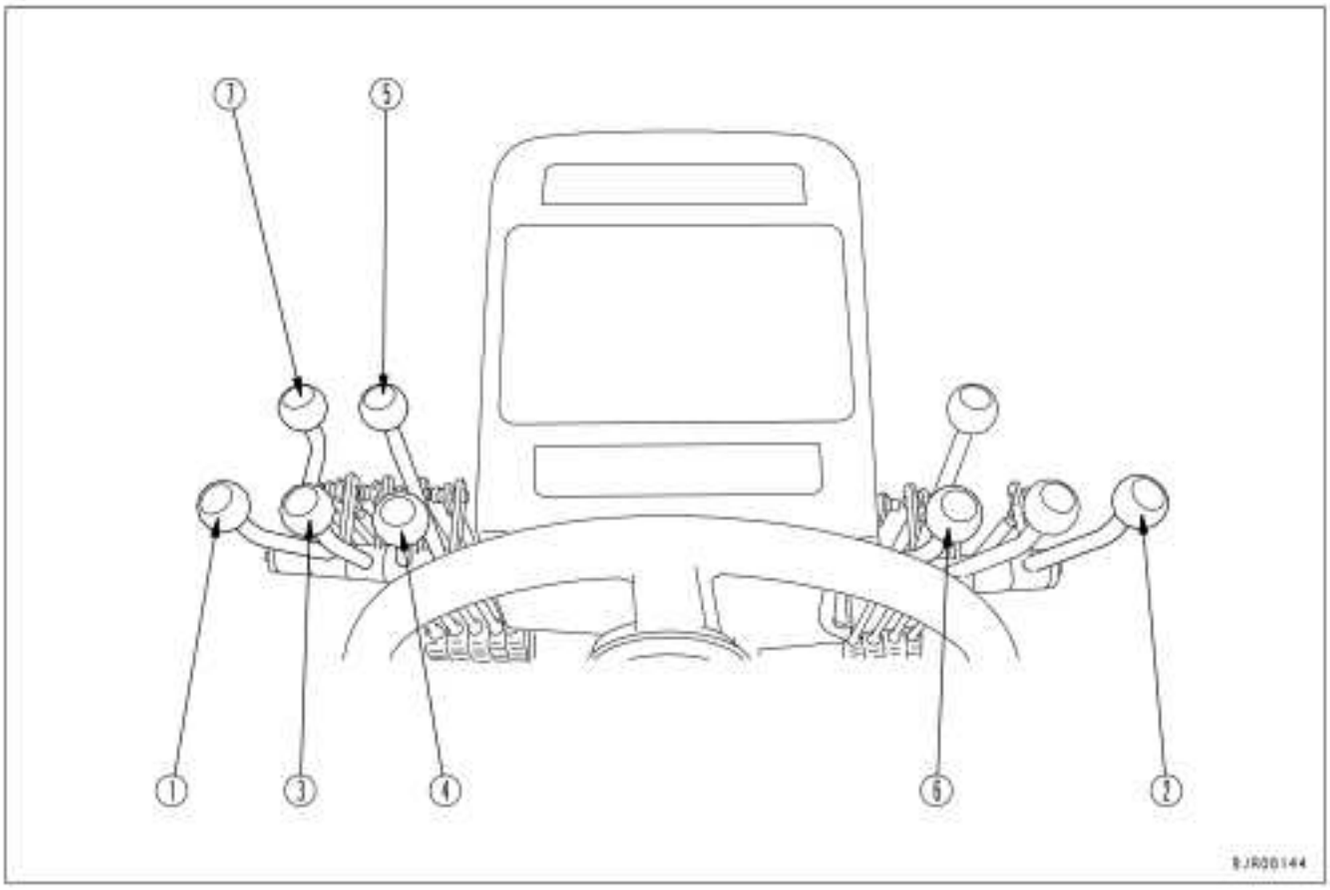
SLOW BLOW FUSE ---- 3- 55
CIRCUIT BREAKER ---- 3- 55
HANDLING BATTERY DISCONNECTOR SWITCH ---- 3- 56
OPERATION ---- 3- 57
CHECK BEFORE STARTING ENGINE ---- 3- 57
STARTING ENGINE ---- 3- 71
OPERATIONS, CHECKS AFTER STARTING ENGINE ---- 3- 74
STOPPING ENGINE ---- 3- 75
CHECK AFTER STOPPING ENGINE ---- 3- 75
TRAVELING POSTURE FOR MACHINE ---- 3- 76
MOVING MACHINE OFF (FORWARD, REVERSE, SHIFTING GEAR), STOPPING ---- 3- 77
TURNING MACHINE ---- 3- 86
OPERATING WORK EQUIPMENT ---- 3- 89
WORK WHICH CAN BE CARRIED OUT USING A MOTOR GRADER ---- 3- 95
PRECAUTIONS WHEN OPERATION ---- 3-116
ADJUSTING WORK EQUIPMENT POSTURE ---- 3-120
PARKING MACHINE ---- 3-129
CHECKS AFTER COMPLETION OF OPERATION ---- 3-131
LOCKING ---- 3-132
HANDLING THE TIRES ---- 3-132
TRANSPORTATION ---- 3-133
STEPS FOR TRANSPORTATION ---- 3-133
LOADING, UNLOADING WORK ---- 3-133
PRECAUTIONS FOR LOADING ---- 3-134
COLD WEATHER OPERATION ---- 3-135
PRECAUTIONS FOR LOW TEMPERATURE ---- 3-135
CAUTIONS AFTER COMPLETION OF WORK ---- 3-136
AFTER COLD WEATHER ---- 3-136
LONG-TERM STORAGE ---- 3-137
BEFORE STORAGE ---- 3-137
DURING STORAGE ---- 3-137
AFTER STORAGE ---- 3-137
TROUBLESHOOTING ---- 3-138
AFTER RUNNING OUT OF FUEL ---- 3-138
WHEN LEANING PIPING IS DAMAGED ---- 3-139
TOWING THE MACHINE ---- 3-140
IF BATTERY IS DISCHARGED ---- 3-142
OTHER TROUBLE ---- 3-146
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- 8
WEAR PARTS ---- 4- 9
WEAR PARTS LIST ---- 4- 9
RECOMMENDED FUEL, COOLANT, AND LUBRICANT ---- 4- 10
USE OF FUEL, COOLANT AND LUBRICANTS ACCORDING TO AMBIENT TEMPERATURE ---- 4- 11
RECOMMENDED BRANDS, RECOMMENDED QUALITY FOR PRODUCTS OTHER THAN KOMATSU GENUINE OIL ---- 4- 12
STANDARD TIGHTENING TORQUES FOR BOLTS AND NUTS ---- 4- 13

MidWestTech | Komatsu GD675-3E0 Motor Grader Operation & Maintenance Manual |... Order the manual at mid-west-tech.com >

TORQUE LIST ---- 4- 13
PERIODIC REPLACEMENT OF CRITICAL PARTS ---- 4- 14
CRITICAL PARTS ---- 4- 14
MAINTENANCE SCHEDULE CHART ---- 4- 15
MAINTENANCE SCHEDULE CHART ---- 4- 15
SERVICE PROCEDURE ---- 4- 17
INITIAL 250 HOURS SERVICE (only after the first 250 hours) ---- 4- 17
WHEN REQUIRED ---- 4- 18
CHECK BEFORE STARTING ---- 4- 33
EVERY 50 HOURS SERVICE ---- 4- 34
EVERY 250 HOURS SERVICE ---- 4- 35
EVERY 500 HOURS SERVICE ---- 4- 49
EVERY 1000 HOURS SERVICE ---- 4- 57
EVERY 2000 HOURS SERVICE ---- 4- 66
EVERY 4000 HOURS SERVICE ---- 4- 71
EVERY 8000 HOURS SERVICE ---- 4- 73
SPECIFICATIONS ---- 5- 1
SPECIFICATIONS ---- 5- 2
ATTACHMENTS, OPTIONS ---- 6- 1
HANDLING BLADE ACCUMULATOR ---- 6- 2
FEATURES OF BLADE ACCUMULATOR ---- 6- 2
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- 16
PRECAUTIONS WHEN USING ---- 6- 17
PRECAUTIONS FOR INSPECTION AND MAINTENANCE ---- 6- 17
HANDLING AIR-SUSPENSION SEAT ---- 6- 18
ADJUST OPERATOR'S SEAT ---- 6- 18
HANDLING MACHINES EQUIPPED WITH KOMTRAX ---- 6- 20
BASIC PRECAUTIONS ---- 6- 20
INDEX ---- 7- 1

MidWestTech | Komatsu GD675-3E0 Motor Grader Operation & Maintenance Manual |... Order the manual at mid-west-tech.com >

OPERATING WORK EQUIPMENT



(1) Left blade lift cylinder control lever
(2) Right blade lift cylinder control lever
(3) Blade side shift control lever
(4) Blade rotation control lever
(5) Power tilt control lever
(6) Drawbar side shift control lever
(7) Ripper/Scarifier control lever (if equipped)

MidWestTech | Komatsu GD675-3E0 Motor Grader Operation & Maintenance Manual |... Order the manual at mid-west-tech.com >

TRANSPORTATION

When transporting the machine, observe all related laws and regulations, and be careful to assure safety.

STEPS FOR TRANSPORTATION

As a basic rule, always transport the machine on a trailer.
When selecting the trailer, see the weights and dimensions given in "SPECIFICATIONS (PAGE 5-2)".
Note that the specifications for the weights and dimensions for transportation differ according to the type of tires and type of blade.

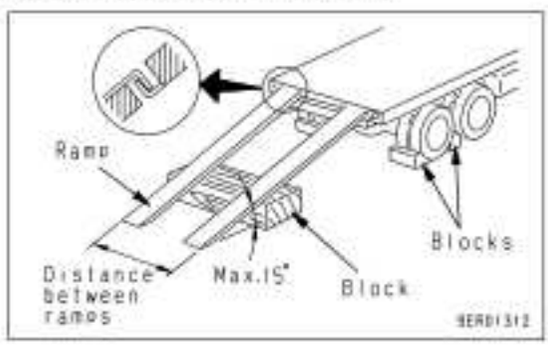
LOADING, UNLOADING WORK

⚠ WARNING

- **When loading or unloading the machine, run the engine at low speed, travel at low speed, and operate slowly.**
- **When loading or unloading the machine, stop the trailer on firm level ground.**
  In addition, keep well away from the road shoulder.
- **Use ramps of ample width, length, thickness, and strength, and install them securely at an angle of less than 15°.**
  When using an embankment, compact the fill soil thoroughly and make sure that the slope face does not collapse.
- **Remove the mud stuck to the undercarriage to prevent the machine from slipping to the side on the ramps.**
  In addition, remove any water, snow, ice, grease, or oil from the ramps.
- **Never change direction on the ramps. There is danger that the machine may tip over.**
  If it is necessary to change direction, return to the ground surface or the trailer platform, correct the direction, and start again.
- **The position of the center of gravity of the machine will change suddenly at the connection of the ramp and trailer, and there is danger of the machine losing its balance. Always drive slowly over this point.**

When loading or unloading, always use ramps or a platform and carry out the operations as follows.

1. Apply the brakes on the trailer securely and insert blocks under the tires to ensure that the trailer does not move.
   Then fix the ramps in line with the centers of the trailer and the machine.
   Be sure that the two sides are at the same height as one another.
   Make the angle of the ramps a maximum of 15°.
   Set the distance between the ramps to match the center of the tires.
2. Set the machine in line with the ramps, then drive the machine slowly to load or unload it.
3. Load the machine correctly in the specified position on the trailer.



REMARK

- When loading or unloading the machine, rotate the blade from the travel posture, then raise it fully. This makes it easier to load or unload the machine.
- If the ripper teeth make it difficult to load the machine, remove the ripper teeth or install them so that they face the top inside. This makes loading easier.

MidWestTech | Komatsu GD675-3E0 Motor Grader Operation & Maintenance Manual |... Order the manual at mid-west-tech.com >

SERVICE PROCEDURE

INITIAL 250 HOURS SERVICE (only after the first 250 hours)

Carry out the following maintenance only after the first 250 hours of operation on new machines.

- REPLACE FUEL MAIN FILTER CARTRIDGE
- CHANGE OIL IN TRANSMISSION CASE
- CHANGE OIL IN FINAL DRIVE CASE
- CHANGE OIL IN CIRCLE REVERSE GEAR CASE
- CHANGE OIL IN HYDRAULIC TANK
- REPLACE HYDRAULIC TANK FILTER ELEMENT
- CHANGE OIL IN TANDEM DRIVE CASE
- Check engine valve clearance, adjust

For details of the method of replacing or maintaining, see the section on EVERY 250 HOURS, EVERY 500 HOURS, 1000 HOURS AND 2000 HOURS SERVICE.

MidWestTech | Komatsu GD675-3E0 Motor Grader Operation & Maintenance Manual |... Order the manual at mid-west-tech.com >