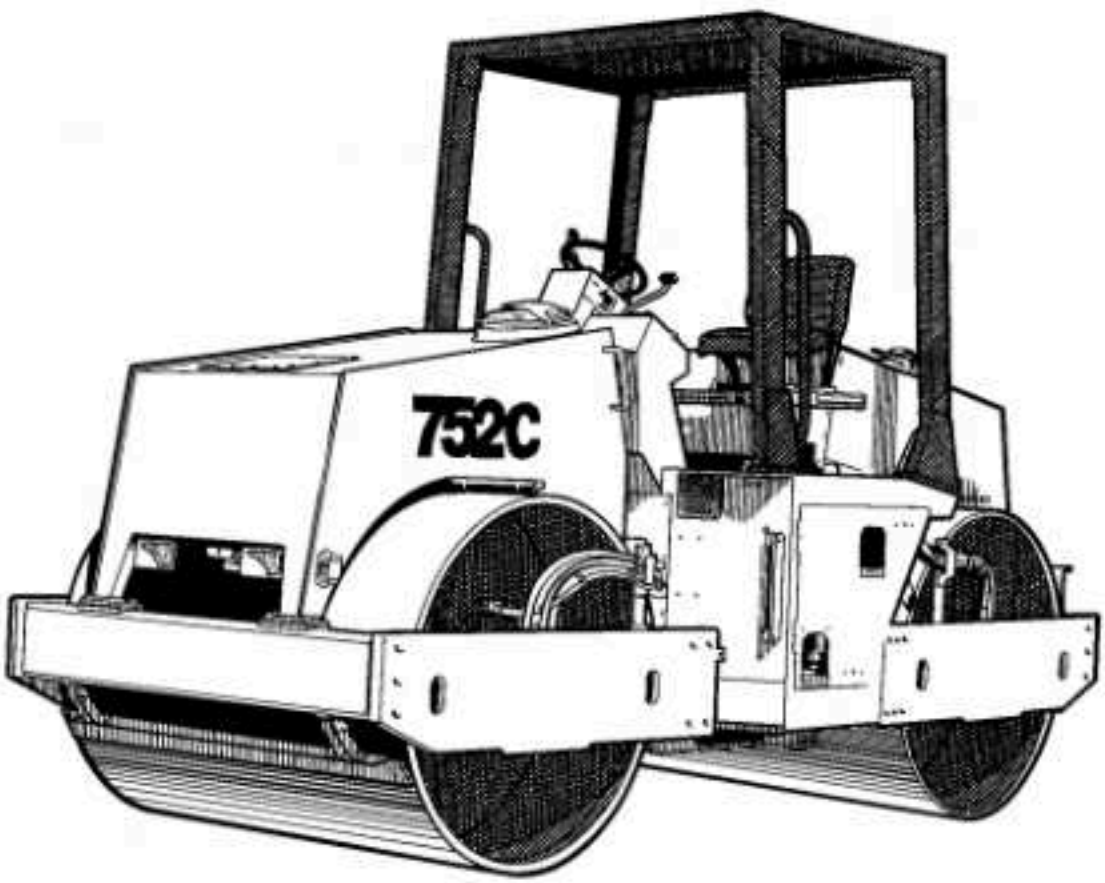
VIBROMAX

TANDEM DRUM ROLLER

SERVICE MANUAL SM71001

May 2000

Model 752C



MidWestTech | JCB Vibromax 752C Tandem Drum Roller Service Manual | Publication SM... Order the manual at mid-west-tech.com >

SECTION ONE

GENERAL INFORMATION ..... 1 - 1

MACHINE DESCRIPTION ..... 1 - 3
MACHINE SERIAL NUMBERS ..... 1 - 5
IDENTIFYING MACHINE COMPONENTS ..... 1 - 6
MACHINE SPECIFICATIONS ..... 1 - 8
STANDARD TORQUE DATA ..... 1 - 10
FLUID CAPACITY - 752C ..... 1 - 12
DIESEL FUEL SPECIFICATION ..... 1 - 13
ENGINE OIL SPECIFICATION ..... 1 - 14
ROLLOVER PROTECTION STRUCTURE ..... 1 - 15
SAFETY, GENERAL ..... 1 - 16
SPARK ARRESTER ..... 1 - 16
SAFETY, PERSONAL ..... 1 - 17
SAFETY, MACHINE OPERATION ..... 1 - 19
SAFETY, MAINTENANCE ..... 1 - 22
SAFETY, DECALS ..... 1 - 23

SECTION TWO

ENGINE ..... 2 - 1

ENGINE DATA ..... 2 - 2
CUMMINS ENGINE WARRANTY ..... 2 - 3
ENGINE REMOVAL ..... 2 - 4

SECTION THREE

ELECTRICAL ..... 3 - 1

INSTRUMENT PANEL, RIGHT ..... 3 - 2
INSTRUMENT PANEL, LEFT ..... 3 - 4
INSTRUMENT PANEL COVER ..... 3 - 5
COMBINATION INDICATOR ..... 3 - 6
SPEED RANGE CONTROL ..... 3 - 7
UNDERSTANDING ELECTRICAL SCHEMATICS ..... 3 - 11
UNDERSTANDING RELAYS ..... 3 - 14
VIBROMAX RELAYS ..... 3 - 15
STARTER/CHARGING CIRCUIT ..... 3 - 17
UNDERSTANDING BATTERIES ..... 3 - 17
BATTERY DIAGNOSTICS ..... 3 - 18
UNDERSTANDING ALTERNATORS ..... 3 - 19

MidWestTech | JCB Vibromax 752C Tandem Drum Roller Service Manual | Publication SM... Order the manual at mid-west-tech.com >

CHARGING SYSTEM DIAGNOSTICS ..... 3 - 20
VOLTAGE CHECKS AT ALTERNATOR ..... 3 - 21
SYSTEM LEAKAGE ..... 3 - 21
CIRCUIT WIRING TEST ..... 3 - 21
MEASURING ALTERNATOR OUTPUT ..... 3 - 22
UNDERSTANDING STARTERS ..... 3 - 22
STARTER SOLENOID ..... 3 - 23
STARTER SYSTEM DIAGNOSTICS ..... 3 - 23
SOLENOID CIRCUIT TEST ..... 3 - 23
STARTER CIRCUIT WIRING TEST ..... 3 - 24
STARTER MOTOR TEST ..... 3 - 25
INSTRUMENTATION PANEL ..... 3 - 27
LIGHTING CIRCUIT ..... 3 - 29
WATER SPRINKLER CIRCUIT ..... 3 - 31
VIBRATION/DRUM SELECTION CIRCUITS ..... 3 - 33
VIBRATION CONTROL CIRCUIT ..... 3 - 35
TWO SPEED PROPULSION MOTOR CIRCUITS ..... 3 - 37
WIRE CHART, RIGHT PANEL & HARNESS 4010/67455 ..... 3 - 44
WIRE CHART, LEFT PANEL & HARNESS 4010/67413 ..... 3 - 46
WIRE CHART, FRONT HARNESS 4010/67336 ..... 3 - 48
WIRE CHART, REAR HARNESS 4010/68335 ..... 3 - 49

SECTION FOUR

HYDRAULIC ..... 4 - 1

PROPULSION SYSTEM ..... 4 - 5
VIBRATION SYSTEM ..... 4 - 9
STEERING SYSTEM ..... 4 - 13
BRAKE CIRCUIT ..... 4 - 17
HYDRAULIC AND COOLING LINES ..... 4 - 18
HYDRAULIC DRAIN SYSTEM ..... 4 - 20
HYDRAULIC SYSTEM COMPONENTS ..... 4 - 22
PRESSURE TEST POINTS ..... 4 - 22
HYDRAULIC SCHEMATIC ..... 4 - 23

MidWestTech | JCB Vibromax 752C Tandem Drum Roller Service Manual | Publication SM... Order the manual at mid-west-tech.com >

SECTION FIVE

POWER TRAIN ..... 5 - 1

752C DRUM ASSEMBLY ..... 5 - 3
DRUM REMOVAL ..... 5 - 8
DRUM INSTALLATION ..... 5 - 9
RIGHT SIDE BEARING COVER ..... 5 - 10
DRUM DRIVE BEARING REMOVAL ..... 5 - 11
DRUM DRIVE BEARING ASSEMBLY ..... 5 - 12
DRUM DRIVE MOTOR REPAIRS ..... 5 - 13
DRUM DRIVE GEARBOX ..... 5 - 14
GFT 17 T2/312 2 GEARBOX ..... 5 - 16

SECTION SIX

PARKING BRAKE SYSTEM ..... 6 - 1

BRAKE CIRCUIT ..... 6 - 6
TOWING YOUR MACHINE ..... 6 - 7

SECTION SEVEN

VIBRATION SYSTEM ..... 7 - 1

LIFTING DEVICE ..... 7 - 2
DRUM EXCITER SHAFT ..... 7 - 3
752C VIBRATION SYSTEM ..... 7 - 4
VIBRATION SYSTEM ..... 7 - 7
VIBRATION FREQUENCY ..... 7 - 8
VIBRATION AMPLITUDE ..... 7 - 9
VIBRATORY SYSTEM DIAGNOSTICS ..... 7 - 10
752C DRUM DRAWING ..... 7 - 11
DRUM - LEFT SIDE ..... 7 - 12
DRUM - RIGHT SIDE ..... 7 - 15
DRUM REMOVAL ..... 7 - 18
DRUM INSTALLATION ..... 7 - 19
RIGHT SIDE BEARING COVER ..... 7 - 20
EXCITER BEARING REMOVAL ..... 7 - 21
EXCITER BEARING ASSEMBLY ..... 7 - 23

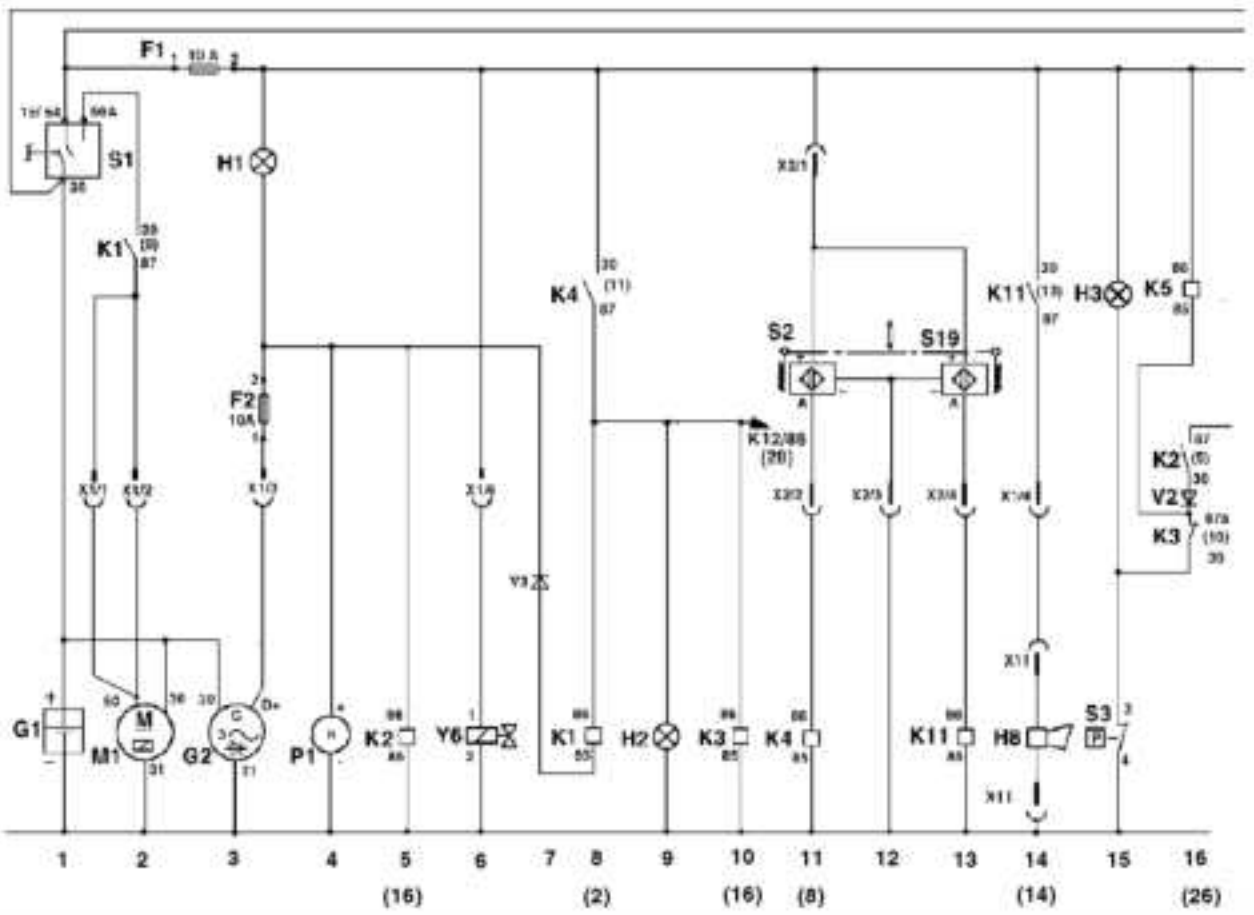
MidWestTech | JCB Vibromax 752C Tandem Drum Roller Service Manual | Publication SM... Order the manual at mid-west-tech.com >

FLUID CAPACITY - 752C

MACHINE PART	CAPACITY USA (metric)	SPECIFICATIONS
Fuel tank	37 gal (140 l)	see diesel fuel
Engine crankcase	11.5 qts(10.9 l)	engine oil API classification API-CD MIL-L-2104C multigrade engine oil (see oil chart) single grade engine oil (see oil chart)
Hydraulic system Reservoir refill	47.6 gal (180 l)	cold weather HLP 46 DIN 51524/2 hot weather HLP 68 DIN 51524/2 Mobil DTE 25,26 Shell Tellus OL 46,68 Amoco Rykon HD 46,68 Texaco Rando HD 46,68
Drum gearbox (each drum)	1.4 qts (1.3 l)	CPL 220 LS 2 DIN 51517/3 Mobilgear 630 Mobilgear SHC 220 Texaco Syngear 220
Vibration system (each drum)	2.6 qts (2.5 l)	CLP DIN 51517/3 Mobil Gear 627 Shell Omala 100 Texaco Meropa 100
Battery	as required	Distilled water
Grease	as required	Molydisulfide grease
Engine coolant	20 qts (19 l)	50% ethylene glycol and 50% water -34 degrees F (-37 degrees C)

MidWestTech | JCB Vibromax 752C Tandem Drum Roller Service Manual | Publication SM... Order the manual at mid-west-tech.com >

UNDERSTANDING ELECTRICAL SCHEMATICS



MidWestTech | JCB Vibromax 752C Tandem Drum Roller Service Manual | Publication SM... Order the manual at mid-west-tech.com >

11. Install Shaft seal ring (#12) into the seal retainer and place the retainer over the flange shaft.

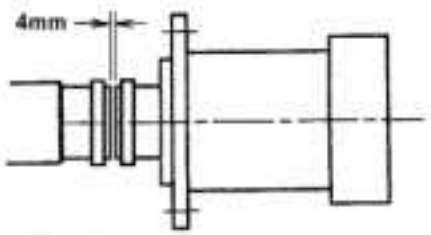
12. Press bearing (#4) onto the bearing flange shaft (#1) and install snap ring (#10).

13. Press bearing (#5) onto the bearing flange shaft (#1) and install snap ring (#6).

14. Install the assembled bearing flange shaft (#1) into the vibratory bearing housing using gasket (#11) and the six 10mm capscrews. Use Loctite 271 and torque to 32 ft.lbs. (44 Nm).

15. Install the completed drive bearing housing assembly onto the drum using a new O-ring (#9). Care must be taken not to damage the exciter shaft and bearings. Install the 16mm capscrews using Loctite 271 and torque to 140 ft. lbs. (190 Nm).

16. Check the vibration shaft for the proper end play (752C = 1.8mm to 3.8mm). With the drive coupling halves installed check for the 4mm shaft to motor clearance as shown below:



VIB. shaft to VIB. motor clearance

17. Install a new vibration motor o-ring and mount the vibration motor using capscrew and washer.

18. Reinstall the drum into the machine.

MidWestTech | JCB Vibromax 752C Tandem Drum Roller Service Manual | Publication SM... Order the manual at mid-west-tech.com >