SERVICE MANUAL

534B

9103-1390

July 2002

Starting S/N
8744110 thru 0144859
Also S/N 8744079 &
(534B-9) S/N 0144860
thru S/N 0144899

CORPORATE OFFICE

JLG INDUSTRIES, INC.
1 JLG DRIVE
McConnellsburg, PA
17233-9533
USA
Telephone: (717) 485-5161
Fax: (717) 485-6417

GRADALL DIVISION

JLG INDUSTRIES, INC.
406 Mill Avenue S.W.
New Philadelphia, OH
44663
USA
Telephone: (330) 339-2211
Fax: (330) 339-8458

MidWestTech | Gradall 534B Telehandler Service Manual | Publication 9103-1390 Order the manual at mid-west-tech.com >

TABLE OF CONTENTS

IMPORTANT SAFETY NOTICE ..... inside front cover
TABLE OF CONTENTS 1
INTRODUCTION 2
- General 2
- Operator Qualifications 2
- Related Manuals & Decals 2
- Orientation 2
- Serial No. Location 2

NOMENCLATURE 3
SAFETY HIGHLIGHTS 4
- Decals 5

HAND SIGNALS 11
OPERATOR'S CAB 12
CONTROL & INSTRUMENT IDENTIFICATION 12
CHECKS & SERVICES BEFORE STARTING ENGINE 14
ENGINE OPERATION 15
- Starting Engine 15
- Cold Weather Starting Aids 15
- Normal Engine Operation 15
- Stopping the Engine 16

WARM UP & OPERATIONAL CHECKS 16
BRAKE SYSTEM 17
- General 17
- Inching 17
- Service Brake 17
- Parking Brake 17

STEERING SYSTEM 18
DRIVE TRAIN 19
- General 19
- Two Wheel Drive 19
- Torque Converter 19
- Transmission 19
- Front Driving Axle 19
- Rear Driving Axle 20
- Inching Travel 20
- Moving Handler with Dead Engine 21

MATERIAL HANDLING 22
- Leveling 22
- Boom 22
- Attachments 23
- Attachment Capacities 23
- Attachment Installation 23

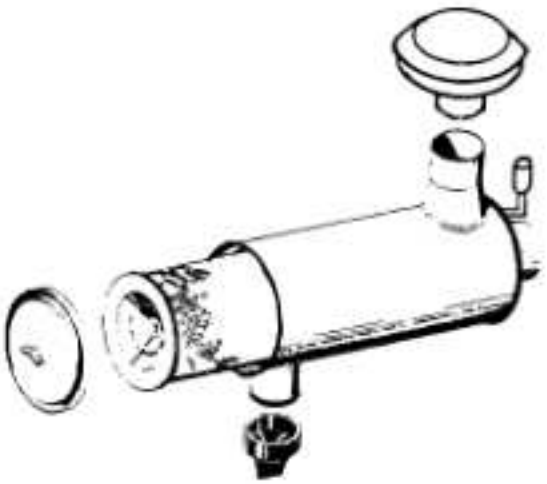
OPERATING PROCEDURES & TECHNIQUES 24
- Hydraulic Controls 24
- Rated Capacity Chart 25

PARKING 26
STORAGE 26
RECOMMENDED LUBRICANTS & CAPACITIES 27
TIRE SPECIFICATIONS 27
LUBRICATION & MAINTENANCE DIAGRAM 28
LUBRICATION FREQUENCIES 29

MidWestTech | Gradall 534B Telehandler Service Manual | Publication 9103-... Order the manual at mid-west-tech.com >

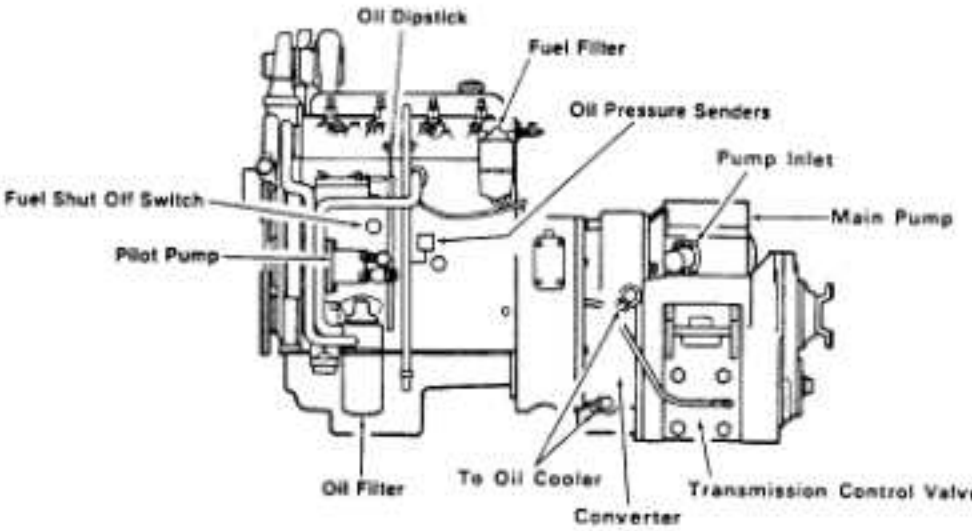
ENGINE

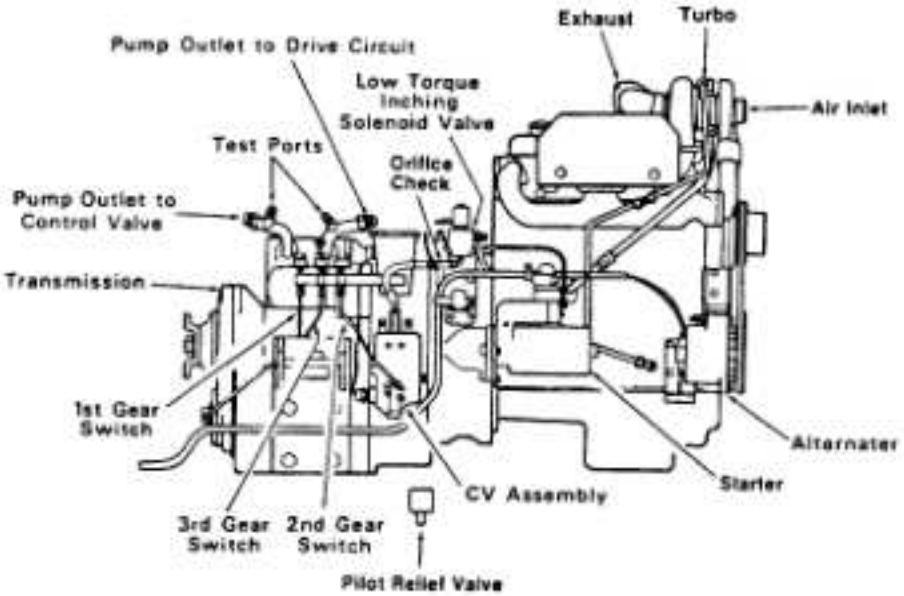
To supply power for the front wheel drive and for various hydraulic circuits, a diesel engine is used. It runs at 900 rpm low idle. Depressing the accelerator pedal all the way, the engine will run 2800 rpm. With a nominal load the engine will average out at 2600 rpm and will produce 102 gross BHP. The engine speed governs both over-the-road travel speed and the hydraulic circuit speeds.



Engine Filters

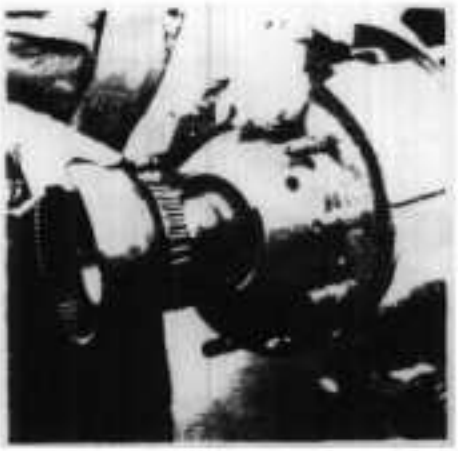
The engine has a two stage dry air cleaner, a pre-cleaner with continuous dust ejector, plus a cleanable and replaceable dry filter element. The fuel filter is a replaceable element type and the oil filter is a full flow replaceable element type.





MidWestTech | Gradall 534B Telehandler Service Manual | Publication 9103-1390 Order the manual at mid-west-tech.com >

PLANETARY HUB REDUCERS



- Install wheel hub assembly.
- Install ring gear carrier.



- Install the tapper ring.
- Position the locking washer correctly
- Install the spindle nut.

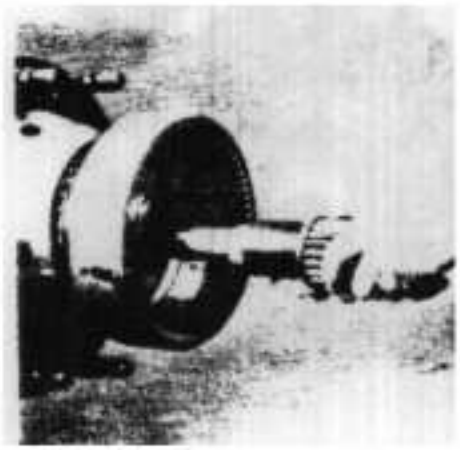


FOR ON HIGHWAY VEHICLES

- Tighten the spindle nut according to specification STB 3-201 and secure the nut.

FORCE OFF-HIGHWAY VEHICLES

- Tighten the spindle nut according to specification STB 3-202 and secure the nut.



FOR RIGID AXLES ONLY

- Install the axle shaft couple sun gear

FOR STEER AXLES ONLY

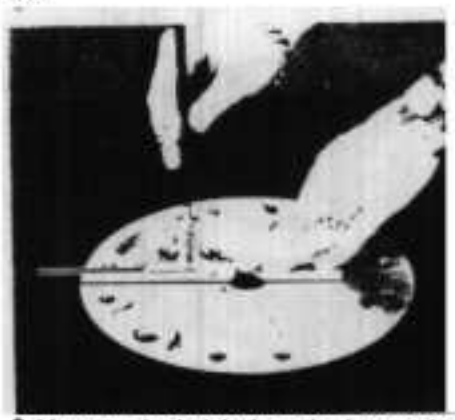
- Install the mid shaft, coupler and the sun gear



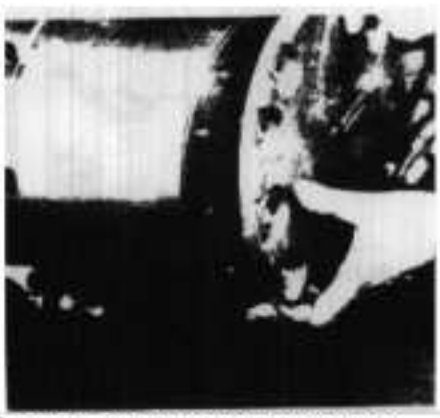
- Replace the ring.
- Install the planet gear carrier
- Tighten the screws according to specification STB 1-203.



- Measure the distance between the face and the button



- Measure the height from the face to the middle thrust cap.
- Select the thrust button to adjust the axial clearance according to specification STB 1-201.



- Place the o'ring on the planet gear carrier.
- Install the cover plate: make sure to line up the drain hole with the lubrication hole in the gear carrier.



- Replace the brake drum
- Tighten the screws according to specification STB 1-203.
- Fill oil through the drain hole according to specification STC 5-102.
- Check the level.

Order the manual at mid-west-tech.com >

RECOMMENDED LUBRICATION PRACTICES FOR AXLES AND GEAR BOXES

DELIVERY

The machined unpainted parts are delivered greased and must be used as delivered.

The gear boxes and axles are delivered without lubricant.

The wheel hubs are greased for life.

LUBRICANT FILLING

Lubricant Quality

We recommend a multigrade lubricant 80 W 90 with service level API GL 5 and approved as meeting US MIL L2105 C specification. All lubricants used must be compatible between them.

See our specification STC 5-101.

Avoid mixing two different oil types, even if from the same trade name.

Checking and Filling Procedure

The unit or the vehicle must be on a level floor. Fill the unit through the oil plug until overflow.

Lubricant Capacity

Lubricant capacity are given as guideline only: the oil level only determines the lubricant capacity needed according to the unit.

Axles

The oil capacities vary due to the vehicle manufacturer's installation, or to the length of axles where the lubricant flows from the differential carrier through the planetary hub reducers.

The oil capacities are usually constants for a given differential carrier 1 250 - 1 500 1 600 - 1 750 - 1 800 (except for 1 800 DG).

DIFFERENTIAL CARRIER	
Type	Capacity
3M	6l/5.6qt
5M	10l/9.5qt
5MT	15l/14.1qt
5MTG	18.5l/17.5qt
10M	17.5l/16.5qt

PLANETARY HUB REDUCER					
Type	75	SPINDLE DIAMETER			
		90	100	110	130
3.55MS	0.6l/.5qt	1l/9qt.	—	—	—
3.55MJ	1.4l/1.3qt	—	—	—	—
3.55P	0.6l/.5qt	1l/9qt.	—	2l/1.9qt	—
4.63MS	—	—	—	—	—
4.63MJ	—	—	—	3l/2.8qt	—
5.6MS	—	1l/.9qt	2.8l/2.6qt	2.8l/2.6qt	—
5.6MJ	—	—	—	3.6l/3.4qt	—

MS= Single tires MJ= Dual tires P= Drop wheel

Order the manual at mid-west-tech.com >