NEW HOLLAND

CRAWLER EXCAVATOR

E135B TIER 3

OPERATOR'S MANUAL

87722056 NA

Issued 01Jan 08

NEW HOLLAND CONSTRUCTION

www.newhollandconstruction.com

MidWestTech | New Holland E135B Tier 3 Crawler Excavator Operator's Manual | Publicati... Order the manual at mid-west-tech.com >

TABLE OF CONTENTS

CHAPTER 1
GENERAL INFORMATION
To the Owner 1-1
Right, Left, Front, and Rear of the Machine 1-2
Machine Components 1-3
Identification Numbers 1-4

CHAPTER 2
SAFETY, DECALS, AND HAND SIGNALS
Table of Contents 2-1
Safety Rules 2-3
Operator Precautions 2-4
Decals 2-10
Hand Signals 2-27

CHAPTER 3
INSTRUMENTS AND CONTROLS
Table of Contents 3-1
Operator Cab and Operator Seat 3-3
Machine Access Compartments and Doors 3-9
Operator's Compartment Controls and Accessories 3-11
B1. I.T.C.S. Controller CPU Display 3-19
Operating Levers and Controls 3-36

CHAPTER 4
OPERATING INSTRUCTIONS
Table of Contents 4-1
Before Operating the Machine 4-3
Operating the Machine 4-3
Starting & Stopping Machine Engine with Temperature above 0°C (32°F) 4-4
Starting & Stopping Machine Engine with Temperature below 0°C (32°F) 4-5
Starting Machine Engine with Booster Cable 4-6
Machine Warm Up 4-8
Control Decal 4-10
Basic Operation of Hydraulic Controls 4-11
Using Auto Acceleration 4-18
Practices to Improve Efficiency 4-19
Machine Operation in Adverse Weather Conditions 4-21
Recommendation for Longer Undercarriage Life 4-22
Bucket Selection Guide 4-22
Use of Optional Attachment 4-23
Transportation 4-34
Machine Storage 4-37

CHAPTER 5
LUBRICATION, FILTERS, AND FLUIDS
Table of Contents 5-1
Fluids and Filters 5-3
Lubricant Specifications 5-5
Use of Bio-Degradable Oils 5-5

CHAPTER 6
MAINTENANCE AND ADJUSTMENTS
Table of Contents 6-1

MidWestTech | New Holland E135B Tier 3 Crawler Excavator Operator's Manual | Publicati... Order the manual at mid-west-tech.com >

CHAPTER 2

SAFETY, DECALS, AND HAND SIGNALS

TABLE OF CONTENTS

SAFETY RULES . . . 2-3
Personal Safety . . . 2-3
Safety Area . . . 2-3
Utility Safety . . . 2-4

OPERATOR PRECAUTIONS . . . 2-4
Personnel . . . 2-4
General . . . 2-4
Mounting and Dismounting Precautions . . . 2-5
Starting and Stopping Precautions . . . 2-5
Operating Precautions . . . 2-5
Maintenance Precautions . . . 2-7
Fuel Handling Precautions . . . 2-7
Burn Prevention . . . 2-8
Hazardous Chemical Precautions . . . 2-8
Transporting Precautions . . . 2-8
Roll-Over Protective Structure (If equipped) . . . 2-8
Fire Extinguisher . . . 2-8
Fire Prevention . . . 2-8
Seat Belt Precautions . . . 2-9
Emergency Exit Hammer . . . 2-9
Specific Precautions to this Machine . . . 2-9

DECALS . . . 2-10
Counterweight Lifting Eyes - Danger . . . 2-11
Keep Surface Clean - Warning . . . 2-11
Pressurized Hot Oil - Warning . . . 2-12
Hot Parts - Caution . . . 2-12
Do Not Step On - Warning . . . 2-13
Stop Engine - Warning . . . 2-13
Hot Coolant - Warning . . . 2-14
Booster Cable - Warning . . . 2-14
Booster Cable - Warning . . . 2-15
California Proposition 65 - Warning . . . 2-15
Handling Battery - Warning . . . 2-16
handling battery - danger . . . 2-16
prevent battery explosion - warning . . . 2-17
adjusting track tension . . . 2-17
swing brake release switch - caution . . . 2-18
Hot parts - caution . . . 2-18
Rotating Parts - Caution . . . 2-19
Swing - Danger . . . 2-19
Machines Equipped With Pattern Control Change Valve (Optional) . . . 2-20
Located Inside Cab, on Right Window Glass Lower Corner - Part Number YN20T01863P1 . . . 2-21
Machines Equipped With Pattern Control Change Valve (Optional) - Warning . . . 2-22
Attachment Operation By Foot Pedal - Caution . . . 2-22
Nibbler & Breaker Hydraulic Oil Maintenance (Optional) - Caution . . . 2-23
Machines Equipped With Special Attachment (Optional) - Notice . . . 2-23
Do Not Pinch Your Hand(s) - Caution . . . 2-24
Falling Front Window - (Lock - Unlock) . . . 2-24
Swing Brake Release - Caution . . . 2-25
Nibbler & Breaker Operation (Optional) - Caution . . . 2-25
Keep Clear Of Machine - Danger . . . 2-26

MidWestTech | New Holland E135B Tier 3 Crawler Excavator Operator's Manual | Publicati... Order the manual at mid-west-tech.com >

CHAPTER 3

INSTRUMENTS AND CONTROLS

TABLE OF CONTENTS

OPERATOR CAB AND OPERATOR SEAT . . . 3-3
- Locking/Unlocking Cab Door . . . 3-3
- Cab Door Latch . . . 3-3
- Opening and Closing Windshield . . . 3-4
- Removing and Storing Lower Front Window . . . 3-4
- Opening and Closing Door Glass . . . 3-5
- Opening and Closing Sunroof . . . 3-5
- Cab Dome Light . . . 3-5
- Document Pouch . . . 3-6
- Operator Seat Adjustments . . . 3-6
  - Seat Front and Rear Height adjustment . . . 3-6
  - Seat Back Reclining Adjustment . . . 3-6
  - Seat Forward & Backward Adjustment . . . 3-7
  - Arm Rest Adjustment . . . 3-7
  - Seat Head Rest Adjustment . . . 3-7
- Seat Belt . . . 3-8

MACHINE ACCESS COMPARTMENTS AND DOORS . . . 3-9
- Engine Coolant Tank & Engine Air Cleaner Access Doors . . . 3-9
- Main Pump Access Door . . . 3-9
- Fuel Cap . . . 3-10
- Engine Cover . . . 3-10

OPERATOR'S COMPARTMENT CONTROLS AND ACCESSORIES . . . 3-11
- Operator Cab Nomenclature . . . 3-12
- Components & Controls Nomenclature . . . 3-12
- Right Hand Operator Console and Monitor . . . 3-12
  - Key Switch . . . 3-12
  - Throttle Potentiometer . . . 3-12
  - Monitor . . . 3-13
  - Work Mode Switch . . . 3-13
  - Buzzer Stop Switch . . . 3-14
  - windshield Wiper & Washer Switch . . . 3-14
  - Screen Change Switch . . . 3-15
  - Screen display switch. . . . 3-15
  - Auto Accel Switch . . . 3-16
  - Travel Speed Select Switch . . . 3-16
  - L.C.D. Display . . . 3-17
  - A. Normal Displays . . . 3-17
  - B. Warning Displays . . . 3-18
  - Warning Level . . . 3-18
  - Buzzer Sounds . . . 3-18

B1. I.T.C.S. CONTROLLER CPU DISPLAY . . . 3-19
- LCD Contrast Adjustment . . . 3-22
- Monitor Time Adjustment . . . 3-23
- Auto Warm Up . . . 3-24
- Pump Flow Rate Adjustment (A mode / B mode) . . . 3-25
- Draining Hydraulic System Pressure . . . 3-26
- Power Boost Switch . . . 3-27
- 24 Volt Cigarette Lighter . . . 3-27
- Location for Optional Switches . . . 3-27
- Cup Holder and Ashtray . . . 3-27
- Radio . . . 3-28
- Control Switches . . . 3-28

MidWestTech | New Holland E135B Tier 3 Crawler Excavator Operator's Manual | Publicati... Order the manual at mid-west-tech.com >

CONTROL DECAL

OPERATING PATTERN

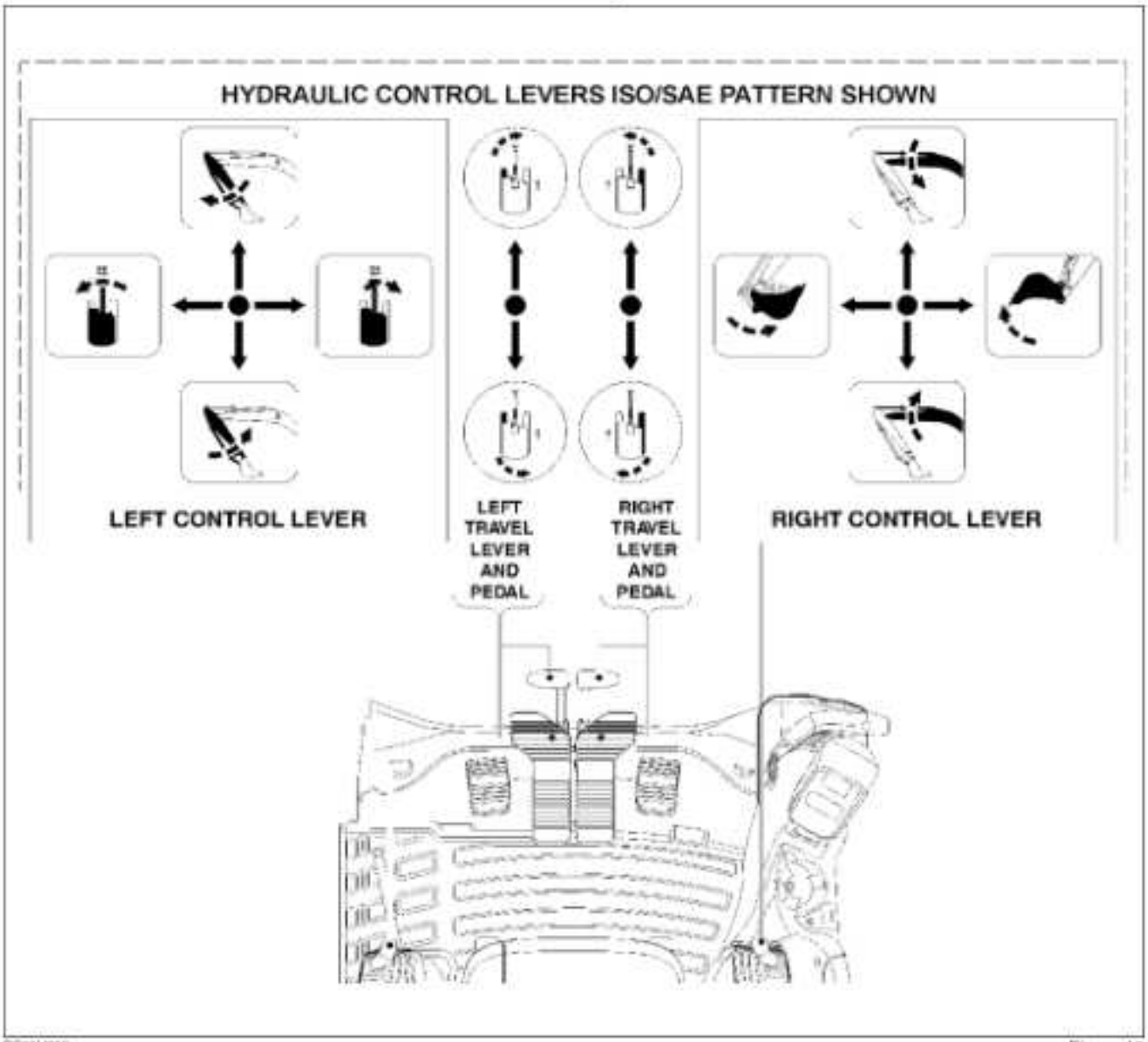
The operating and travel controls of this machine are factory set at ISO/SAE standard operating patterns.

OPERATING PATTERN DECAL

Figure below is a representation of the "CONTROLS" decal located inside the right side window of the operator cab. Study this decal and understand the directions each control can be operated and the functions associated with each movement of particular control. Detailed instructions for each control and its functions are explained on the following pages of this Chapter. Should this decal become damage or missing, install a new decal.

WARNING: *Check and make sure that operation's pattern control matches the decal provided inside the right side window.*

WARNING: *If your machine is set to the operational BHL pattern control, changer. make sure to remove the ISO/SAE operation pattern control decal inside the right side window and use the decal supplied for the optional BHL pattern control. This decal should be placed inside the door, below the handle. See Pattern Control Change (BHL pattern) in chapter 3 page 3-37 for detail information on how to operate the pattern control changer.*



BS06H036

Figure 10

MidWestTech | New Holland E135B Tier 3 Crawler Excavator Operator's Manual | Publicati... Order the manual at mid-west-tech.com >

OPERATION IN HUMID CLIMATE

1. In climates with high humidity, thoroughly wash the machine daily and coat all bare surfaces with an oil based lubricant to help prevent corrosion.
2. Operate the A/C with the cab doors and windows closed.

RECOMMENDATION FOR LONGER UNDERCARRIAGE LIFE

Undercarriage life varies upon operation method. Use the following guides to increase the life of the machine's undercarriage.

1. Select the track shoe that best suits the machine's application. If in doubt, consult with your New Holland Construction distributor when selecting track shoes.
2. Do not allow the tracks to slip during operation. If this occurs, reduce load until slipping stops.
3. Avoid sudden starts, accelerations, abrupt speed changes, high speeds on rough terrains, sharp turns, and sudden stops.
4. Always operate machine in straight lines whenever possible. Avoid short radius when turning. Make turns with the largest possible radius.
5. Prior to operation, clear boulders and obstacles to prevent damage to track shoes.
6. Always operate machine parallel to the inclination of the slope. Operating machine across the inclination of the slope will not only shorten the machine's undercarriage life, but the machine could unexpectedly slide down hill, and/or roll over.
7. Do not force the machine to carry out work that exceeds its working capability.
8. It is very important that inspections and maintenance must be carried put accordingly, as mentioned in the Maintenance Section. DO NOT OPERATE machine with loose track shoes, and maintain proper track tension adjustment at all times during operation.

BUCKET SELECTION GUIDE

Bucket selection is extremely important to a machine's productivity, durability, and stability.

Choosing an excessively large bucket can reduce productivity due to slower than normal cycle times.

Using an oversized or overly wide bucket in severe conditions such as mining, will lead to durability problems for both the machine and bucket involved.

Stability will be adversely affected using a bucket that is unnecessarily large.

The Bucket Selection charts listed in the **SPECIFICATION'S Section** are to be used as general guidelines.

If the buckets used locally vary in weight from these sample buckets, it will be necessary to adjust the bucket capacity accordingly. A heavier bucket must correspond to a reduced capacity.

If the material density (weight) exceeds guidelines specifications then the bucket capacity must be reduced.

If the machine is to continuously dig rock, wasted shale, river cobbel or other severe applications the narrowest bucket possible should be utilized. This will allow the greatest possible penetration and minimal twisting of the attachment (boom and arm). Bucket capacity **is not** to be the prime consideration for severe applications.

If a machine is used exclusively to load trucks at close radius then the bucket loads can be adjusted up 5% to 7% from the Lift Chart Values listed in the Specification's Section, due to a close in dump radius.

If a machine is used in a spoil pile operation, which causes a large radius dump cycle, applicable loads may have to be adjusted down by 5% from the Lift Chart Values listed in the Specification's Section or stability complaints may occur.

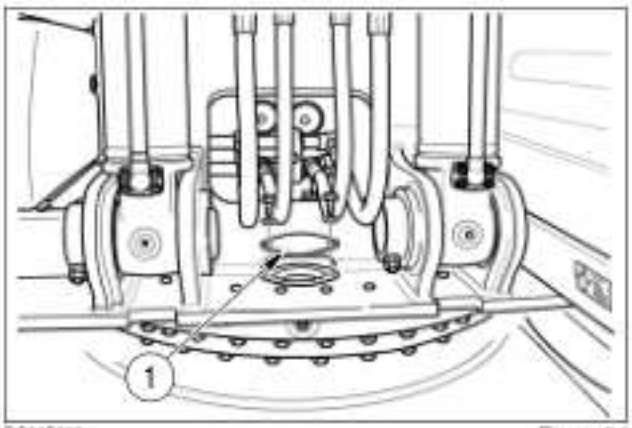
NOTE: *See the "Bucket Selection chart" in the Specification's Section to select the appropriate bucket size according to the application for the E135B.*

MidWestTech | New Holland E135B Tier 3 Crawler Excavator Operator's Manual | Publicati... Order the manual at mid-west-tech.com >

SWING RING GEAR AND SWING BEARING LUBRICATION

1. Swing Ring Gear Lubrication

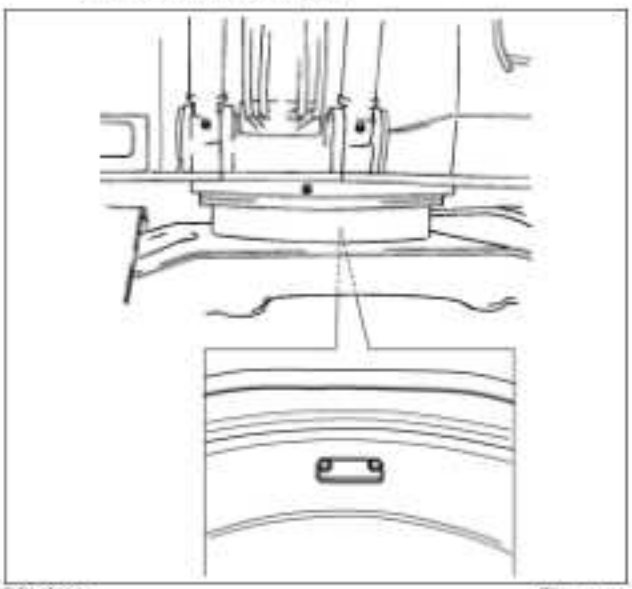
Check the grease level and condition of the swing ring gear grease bath on a new machine after the first 50 hours of engine operation. Then, check every 250 hours. Replace the grease in the swing ring gear bath every 2,000 hours (See 2,000 hour maintenance in this section for details).



DC04C329 Figure 54

1. SWING RING GREASE INSPECTION COVER

a. Stop the engine. Locate the swing ring grease inspection cover between the tool box and the boom support frame. Remove bolts and inspection cover plate.



DC04C330 Figure 55

b. If water is present, remove the lower plate (drain plate).

c. Keep others away from machine, start the engine and slowly rotate the upper structure to inspect the swing gear.

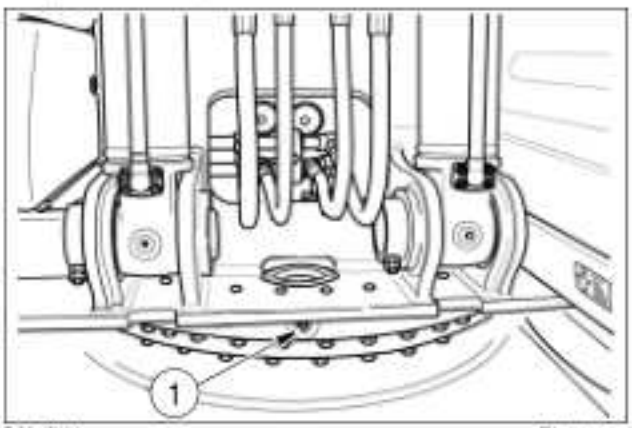
d. Should any grease be needed, add N.L.G.I. No. 2 Lithium base with MOS_2 grease only.

CAUTION: *Do not overfill sump bath. If overfilled, sump bath grease could be pumped into swing motor reduction unit and cause severe damage. Use only N.L.G.I. lithium base with MOS_2 grease in swing ring gear sump bath.*

If the swing ring ever becomes submerged in water, it is mandatory that the sump bath grease be changed. Refer to 2,000 Hour Maintenance for specific instruction.

2. Swing Bearing Lubrication

Lubricate the swing bearing on a new machine after the first 50 hours of engine operation. Then, lubricate every 500 hours, or as conditions dictate.



DC04C331 Figure 56

1. SWING BEARING GREASE FITTING

a. Stop the engine. Locate the grease fitting at the front of the swing bearing.

b. Using a grease gun filled with general purpose EP grease, lubricate swing bearing with several pumps from grease gun.

c. Keep others clear of machine, swing machine 90° right, and repeat step 2. See label on frame.

d. Repeat the process at 90° increments and lubricate swing bearing until ring has been completely greased.

e. Check and make sure the swing bearing seal is in good condition. It is normal to see excessive grease come out of the seal.

MidWestTech | New Holland E135B Tier 3 Crawler Excavator Operator's Manual | Publicati... Order the manual at mid-west-tech.com >