NEW HOLLAND

CRAWLER EXCAVATOR

E215B TIER 3

OPERATOR'S MANUAL

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SAFETY, DECALS, AND HAND SIGNALS

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CHAPTER 3

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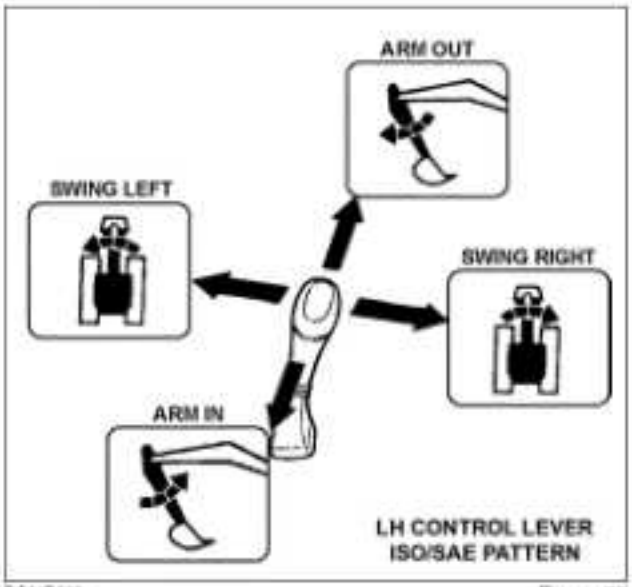
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OPERATING LEVERS AND CONTROLS

1. Left Hand Operator Control Lever (ISO Pattern)



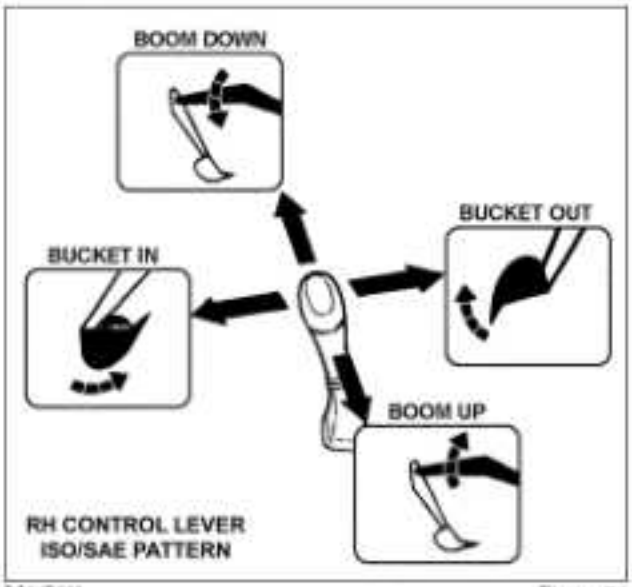
DC040562 Figure 70

CAUTION: *Hydraulic controls are designed for and set to ISO operating pattern for optimum machine performance and safety.*

The Left Hand Operator Control Lever is located at the top front of the LH operator console. Its purpose is to allow the operator to control operations of the swing and arm. Operating speed of function is variable from stop to full stroke depending on how far lever is operated. The left hand operator control lever has 4 basic operational functions.

- **"FORWARD"** - Variable speed ARM out.
- **"BACKWARD"** - Variable speed ARM in.
- **"LEFT"** - Variable speed left SWING.
- **"RIGHT"** - Variable speed right SWING.
- **"CENTER"** - Neutral position.

2. Right Hand Operator Control Lever (ISO Pattern)



DC040563 Figure 71

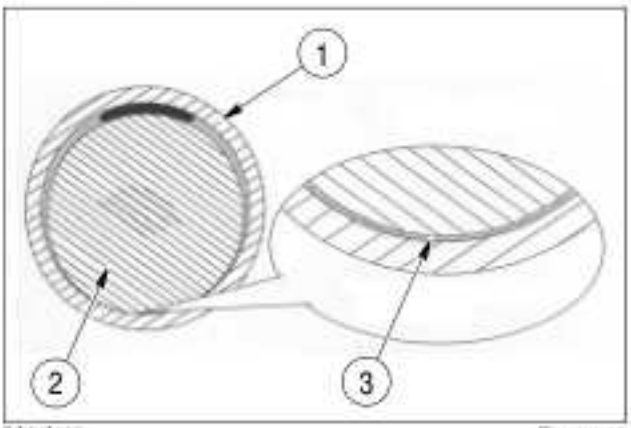
The Right Hand Operator Control Lever is located at the top front of the RH operator console. Its purpose is to allow the operator to control operations of the boom and bucket. Operating speed of function is variable from stop to full stroke depending on how far lever is operated. The right hand operator control has 4 basic operational functions.

- **"FORWARD"** - Variable Speed BOOM down.
- **"BACKWARD"** - Variable speed BOOM up.
- **"LEFT"** - Variable speed BUCKET in (Digging).
- **"RIGHT"** - Variable speed BUCKET out (Dump).
- **"CENTER"** - Neutral position.

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GUIDELINES FOR ATTACHMENT LUBRICATION

Lubricate attachment pins according to the intervals indicated in the Maintenance Chart. Use extreme pressure multipurpose grease No. 2 EP type. Lubricate all points until grease purges. The lubrication intervals are based on a standard excavator (see Specifications Section for the definition of Standard Excavator) working in an **average duty cycle**. Average duty cycle is defined as "Most typical digging application, road construction in natural bed clay, digging 50% – 60% of the daily work schedule".



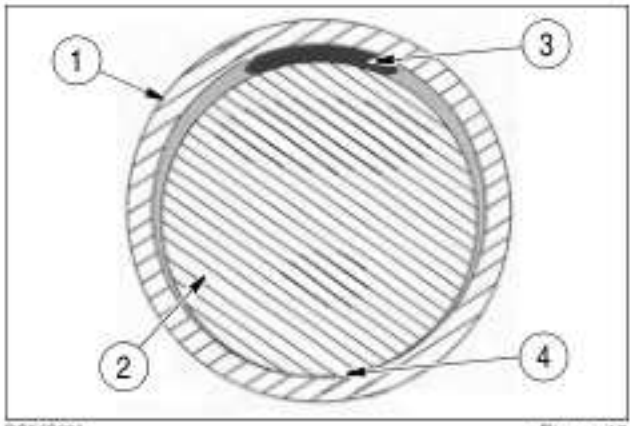
DC04C280 Figure 12

1. BUSHING
2. PIN
3. ROUGH SURFACE REQUIRING BREAK-IN

New pins and bushings, including new machines and repairs require special break-in procedures. While both pin and bushing have a special ground finish, they still have to be mated to each other to eliminate the machining high points.

Because of these high spots, it is recommended that the front attachment or the repaired area be lubricated a minimum of once every eight (8) hours for the first one hundred (100) hours for a standard machine working in an average duty cycle. All other machine should be lubricated every 4 hours for the first twenty (20) hours and every eight (8) hours for the next eighty (80) hours of operation. This lubrication procedure will reduce the possibility of a premature pin or bushing failure during the break-in period.

SPECIAL CONSIDERATIONS FOR HAND LUBRICATION



DC04C281 Figure 13

1. BUSHING
2. PIN
3. HAND LUBE FILL
4. LOAD AREA

While grease grooves in the bushings allow grease to move around the bushing, it does not insure that grease gets on all of the bushing surfaces. Any load on the joint will prevent the grease from getting to the wear surfaces in the loaded area. Due to the fact that a hand operated grease dispenser does not provide the volume of grease that a power system does, there is a greater possibility of bushing galling, unless the standard lubrication procedure is modified. See the pin load and grease cavity illustration shown above. No matter how much grease is pumped into the pin bushing cavity with a hand grease gun, the grease will tend to escape to the outside before filling the grease cavity. Therefore, to avoid this situation, the front attachment has to be repositioned during the lubrication process, to move the load area and allow the grease to cover the entire grease cavity between the pin and bushing.

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LIFTING CAPACITIES

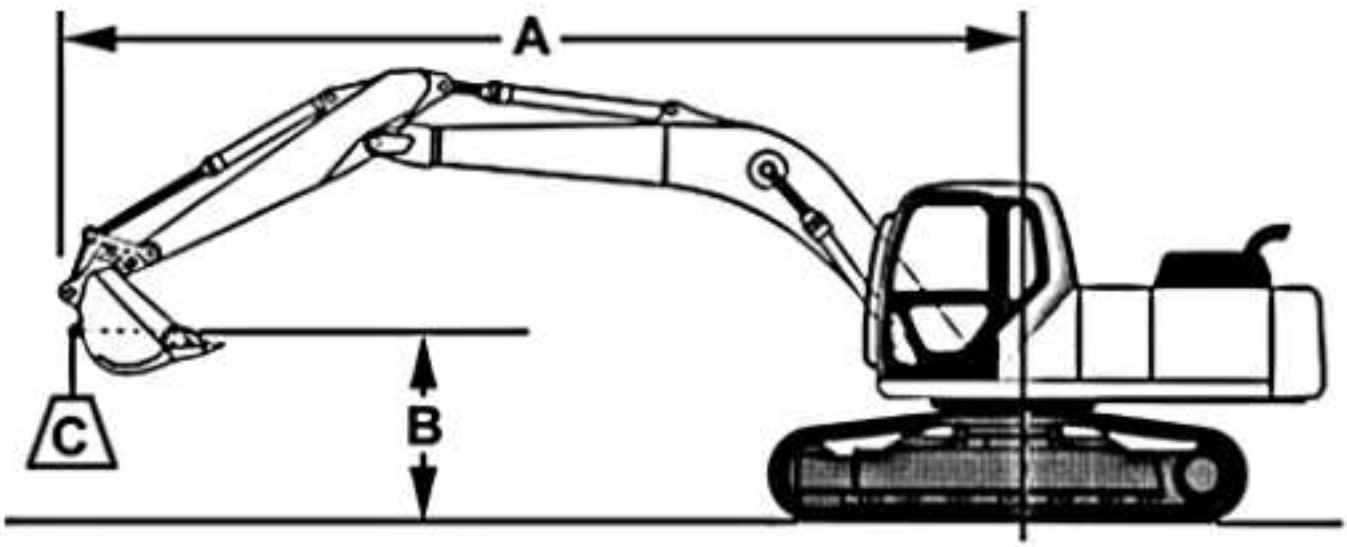
1. Do not attempt to lift any load that exceeds the rated values at their specified load radius and height.
2. Lifting capacities assume a machine standing on a level, firm, and uniform supporting surface. Operator must make allowance for job conditions such as soft or uneven ground, out of level conditions, side loads, sudden stopping of loads, hazardous conditions, inexperienced personnel, weight of various other buckets, lifting slings, attachment, etc.
3. Rating at bucket lift hook.
4. The rated loads are in compliance with SAE Hydraulic Excavator Lift Capacity Standard J1097. They do not exceed 87% of hydraulic lifting capacity or 75% of tipping load. Rated loads marked with asterisk (*) are limited by hydraulic capacity rather than tipping load.
5. Operator should be fully acquainted with the Operator's Manual before operating this machine. Rules for safe operation of equipment should be followed at all times.
6. Capacities apply to the machine as originally manufactured and normally equipped by New Holland Construction.

CAUTION:

THE OPERATOR MUST CONSIDER THE WEIGHT OF ANY DEVICE UTILIZED FOR LIFTING TO PROPERLY CALCULATE THE TOTAL LIFTING CAPACITY OF THE MACHINE. EXAMPLE:

1. *If the excavator uses the same bucket size indicated in the Lifting Chart, and a lifting cable, etc. weighing 100 kg (220 lbs) is used for lifting, then you have to subtract this additional 100 kg (220 lbs) from every value indicated in the Lifting Chart accordingly.*
2. *If a bucket is changed for a larger bucket, which weight is 350 kg (770 lbs) more than the bucket indicated in the Lifting Chart, then you have to subtract this additional weight from every value indicated in the Lifting Chart accordingly.*
3. *If a bucket is changed for a smaller bucket, which weight is 350 kg (770 lbs) less than the bucket indicated in the Lifting Chart, then you can safely add 350 kg (770 lbs) to every value indicated in the Lifting Chart accordingly.*

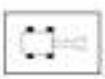
Lifting Capacities Chart Legends:



A - Reach swing center line to bucket hook (Load Radius).

B - Bucket hook height above/below ground.

C - Lifting capacities in pounds (lb) and kilograms (kg).

 Front Lifting.  Side Lifting.

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