Service Manual

Tracked Excavators
JS120

Service Manual - JS120

Section 1 - General Information

Section 2 - Operator's Manual

Section B - Body and Framework

Section F - Transmissions

Section E - Hydraulics

Section F - Transmissions

Section J - Track and Running Gear

Section K - Engine



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Machine Performance Dimensions

Excavator Arm Dimensions and Performance

Digging

Monoboom

Figure 165.

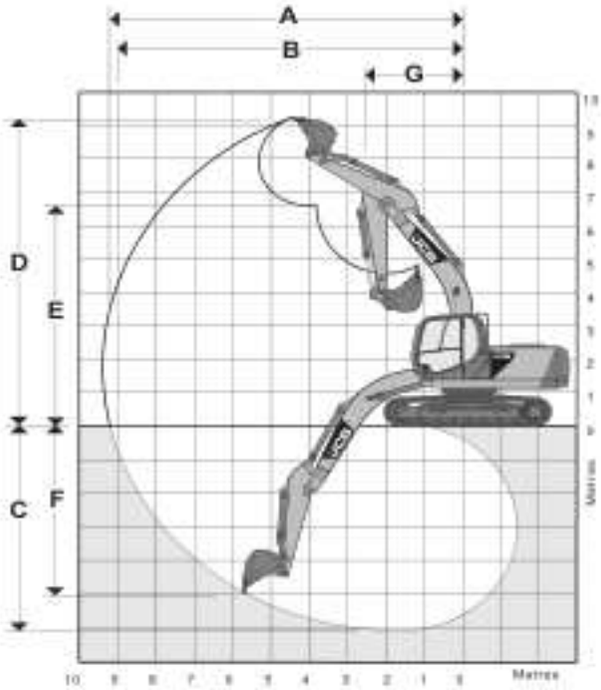


Table 1.

Boom length		**4,400mm**
Dipper length		**1,950mm**
A	Maximum digging reach	7,610mm
B	Maximum digging reach (on ground)	7,452mm
C	Maximum digging depth	4,833mm
D	Maximum digging height	8,582mm
E	Maximum dumping height	6,120mm
F	Maximum vertical wall cut depth	4,275mm
G	Maximum swing radius	2,136mm

Lift Capacities

Lift Capacity Front and Rear

Table 2.

Reach	1,500mm	3,000mm	4,500mm	6,000mm	Capacity at Max. Reach[1,2,3,4]	
Load Point Height mm	Capacity kg[1,2,3,4]				Capacity kg	Max. Reach mm
7,500	-	-	-	-	-	-
6,000	-	-	-	-	-	-
4,500	-	3,090	2,930	-	2,240	5,479
3,000	-	4,510	3,320	2,200	2,170	6,067
1,500	-	5,680	3,090	2,100	1,990	6,248

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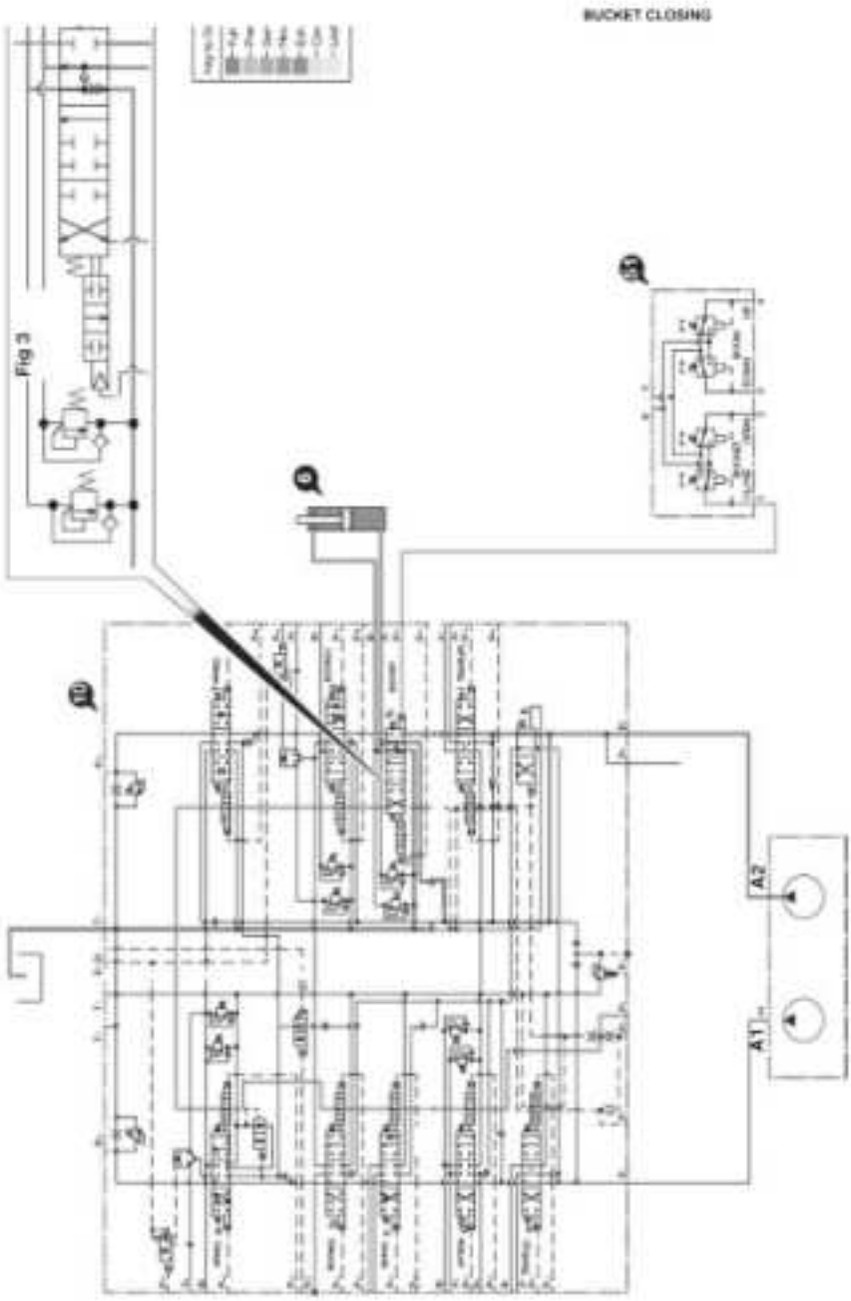


Fig 24.

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Relief Valve

Table 1.

Symptoms	Possible Causes	Countermeasures
Pressure does not rise at all	1. The main poppet, sleeve or pilot poppets are sticking open or foreign matter is in the valve seat.	1 Check whether foreign matter is in each poppet. 2 Check whether each part is sliding smoothly. 3 Clean all the parts.
Relief pressure is unstable	1. The pilot poppet seat is damaged.	Replace the damaged parts.
	2. The piston is sticking to the main poppet.	Remove the surface scratches. Clean all the parts.
Relief pressure is out of control	1. Wear due to foreign matter.	Replace the worn parts
	2. Lock nut and adjuster are loose.	Reset the pressure and tighten the lock nut to the rated torque.
Oil leakage	1. Damaged seat or worn O-ring.	Replace damaged or worn parts. Check whether each part is sliding smoothly.
	2. Parts are sticking due to foreign matter.	Check for scratches, cuts or foreign matter. Clean all the parts.

Hydraulic System

Table 2.

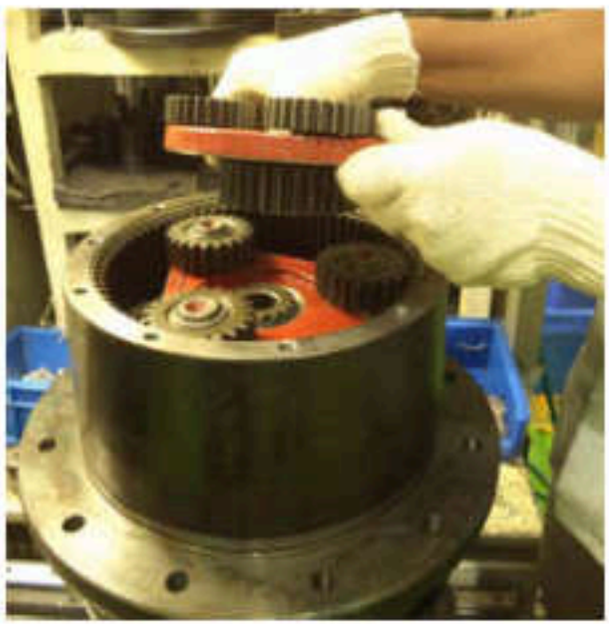
Symptoms	Possible Causes	Countermeasures
	1. Pump problem.	Check the pressure or replace the pump.
	2. Foreign matter clogging inside the relief valve.	Disassemble the relief valve and clean.
	3. Relief valve trouble.	Check according to the maintenance procedures.
	4. Ram trouble.	Repair or replace.
	5. Load is too heavy.	Check the circuit pressure
	6. Crack in the valve.	Replace the valve assembly.
	7. Spool does not stroke fully.	Check the spool movement and operation link.
	8. Oil level too low.	Replenish hydraulic oil.
	9. Filters inside circuit are clogged.	Clean filter or replace.
	10. Hose runs are linked.	Check the hoses.

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Fig 177.

7 Remove the 1st reduction **8**.



8 Remove the 2nd reduction **10**.



Fig 178.

9 By using pliers remove the circlips **11** from their seats in the pins hydraulic motor **18**.



Fig 179.

10 By using a puller remove the 3rd reduction planet assemblies **12**.

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Fig 260.

28 Assemble the O-ring seal **33** into the brake pilot hole of the base plate **30**.



Fig 261.

29 Place the base plate **30** on the flanged hub **1**.



Fig 262.

Note: *The base plate is centered by two pins and the second speed oil passages must match together.*

30 Install the base plate **30** to flanged hub **1**. Use nos.8 socket head screws **(12x25) 37 grade 12.9,** tightened by a torque wrench at 128±7 Nm torque.



Fig 263.

31 Assemble the O-rings **49-50** into their seats in the valve housing **51**.

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