Service Manual

Track excavator

75Z3



Machine model	**75Z3**
Edition	**2.0**
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2.15 Lift capacity table 75Z3 with counterweight

All table indications in kg (lb) and horizontal position on firm ground without bucket.

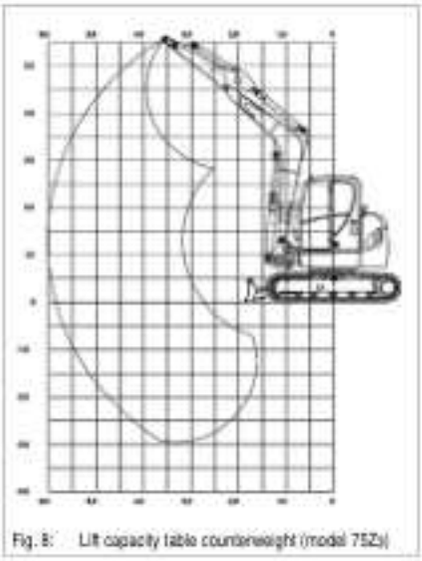
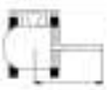


Fig. 8: Lift capacity table counterweight (model 75Z3)

A	max		5.0 m (16'5")		4.0 m (13'1")		3.0 m (9'10")		2.0 m (6'7")	
B										
4.0 m (13'1")	1795* (3957*)	1065* (2348*)	1785* (3935*)	1160 (2557)	1865* (4112*)	1710 (3770)				
3.0 m (9'10")	1760* (3880*)	895 (1973)	1855* (4090*)	1140 (2513)	2130* (4696*)	1630 (3594)				
2.0 m (6'7")	1760* (3880*)	815 (1797)	2020* (4453*)	1085 (2392)	2535* (5589*)	1500 (3307)				
1.0 m (3'3")	1775* (3913*)	785 (1731)	2175* (4795*)	1025 (2260)	2885* (6360*)	1375 (3031)				
0.0 m (0'0")	1795* (3957*)	805 (1775)	2230* (4916*)	985 (2172)	2995* (6603*)	1310 (2888)	4415* (9733*)	1935 (4266)		
-1.0 m (-3'3")	1800* (3968*)	880 (1940)	2100* (4630*)	975 (2150)	2840* (6261*)	1295 (2855)	3990* (8796*)	1960 (4321)	5680* (12522*)	4100 (9039)
-2.0 m (-6'7")	1740* (3836*)	1080 (2381*)			2345* (5170*)	1335 (2943)	3215* (7088*)	2025 (4464)	4560* (10053*)	4200 (9259)

max	Admissible load on extended stick
A	Reach from live ring centre
B	Load hook height
*	Lift capacity limited by hydraulics

	With the stabiliser blade in driving direction
	Without the stabiliser blade, 90° to driving direction

If equipped with a bucket or other attachments, lift capacity or tilt load is reduced by bucket or attachment dead weight.

Calculation basis: according to ISO 10567

The track excavator's lift capacity is restricted by the settings of the pressure limiting valves and the hydraulic system's stabilising features.

Neither 75 % of the static tilt load nor 87 % of the hydraulic lift capacity is exceeded.

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Engine diagnosis codes				Page
Flashing code		Component	Troubleshooting	Error diagnosis
7	Proportional injection pump solenoid (control rack) (Rack position sensor failure)	Loose connector	Tighten the connector	1-9
		Wiring error	Check and replace the defective component	
		Defective sensor	Contact an authorised workshop	
5	Manual throttle lever (Accelerator sensor failure)	Wiring error Sensor voltage: 4.6 V or more, or 0.2 V or less	Check and replace the defective component	1-13
		Defective manual throttle lever sensor	Replace the manual throttle lever sensor	
4-1	ECU internal (ECU internal)	Internal ECU error	Contact your dealer	1-16
	ECU failure (ECU failure)			1-19
2-5	ECU overheated (ECU overheat alarm)	ECU temperature too high	Allow to cool down	1-19
4	Coolant temperature sensor (Coolant temperature sensor failure)	Wiring harness error Sensor voltage: 4.8 V or more, or 0.2 V or less	Check and replace the defective component	1-20
		Defective coolant temperature sensor	Replace the sensor	
3-6	Coolant temperature too high (Coolant temperature high alarm)	Overheated engine	Let the engine cool down	1-22
		Not enough coolant	Fill up coolant	
		Defective engine cooling system	Check the engine cooling system and replace the defective component if necessary	
		Defective coolant temperature sensor	Replace the sensor	
2-4	5 V sensor (Sensor 5 V failure)	Wiring harness error Sensor voltage: less than 4.5 V or more than 5.5 V	Check and replace the defective component	1-24
		Internal ECU error	Contact an authorised workshop	
2-3	Power supply (Power supply voltage abnormal)	Old battery	Replace the battery	1-27
		Oxidised battery terminals	Clean the battery terminals	
		Defective alternator	Replace the alternator	
		Wiring harness error Battery voltage: more than 10 V or more than 16 V	Check and replace the defective component	

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3. Check the wiring harness for continuity:

- Disconnect the proportional solenoid relay of the injection pump and the E-ECU from the wiring harness.
- Check the wiring harness for continuity by means of a multimeter.

Clamp	Continuity	Status
Relay coil (output side) E33 [between E-ECU and sensor connector]	Yes	OK: normal
	No	NG: open wiring harness
Relay coil (input side) E07 [between E-ECU and sensor connector]	Yes	OK: normal
	No	NG: open wiring harness
Between E33 and GND/E28/E45/E47	No	OK: normal
	Yes	NG: wiring harness short-circuited to GND
Between E33 and E43/E48	No	OK: normal
	Yes	NG: wiring harness short-circuited with power supply

NG	• Check whether the wiring harness is damaged, or whether the wiring is correct. • Replace the wiring harness.
OK	Check the movement of the proportional solenoid relay of the injection pump with the diagnosis tool. -> Next: [4. Check the relay for movement:]

4. Check the relay for movement:

- Connect the maintenance wiring harness between the E-ECU and the machine wiring harness (see [Important information on the maintenance wiring harness] *1-8* for details). Connect all connectors (proportional solenoid relay of injection pump, E-ECU).
- Connect the diagnosis tool, switch on ignition and log in to the diagnosis tool.
- Activate the proportional solenoid relay of the injection pump by means of the diagnosis tool "Diagnosis test: active control", and measure the voltage between terminals E33 and E45.

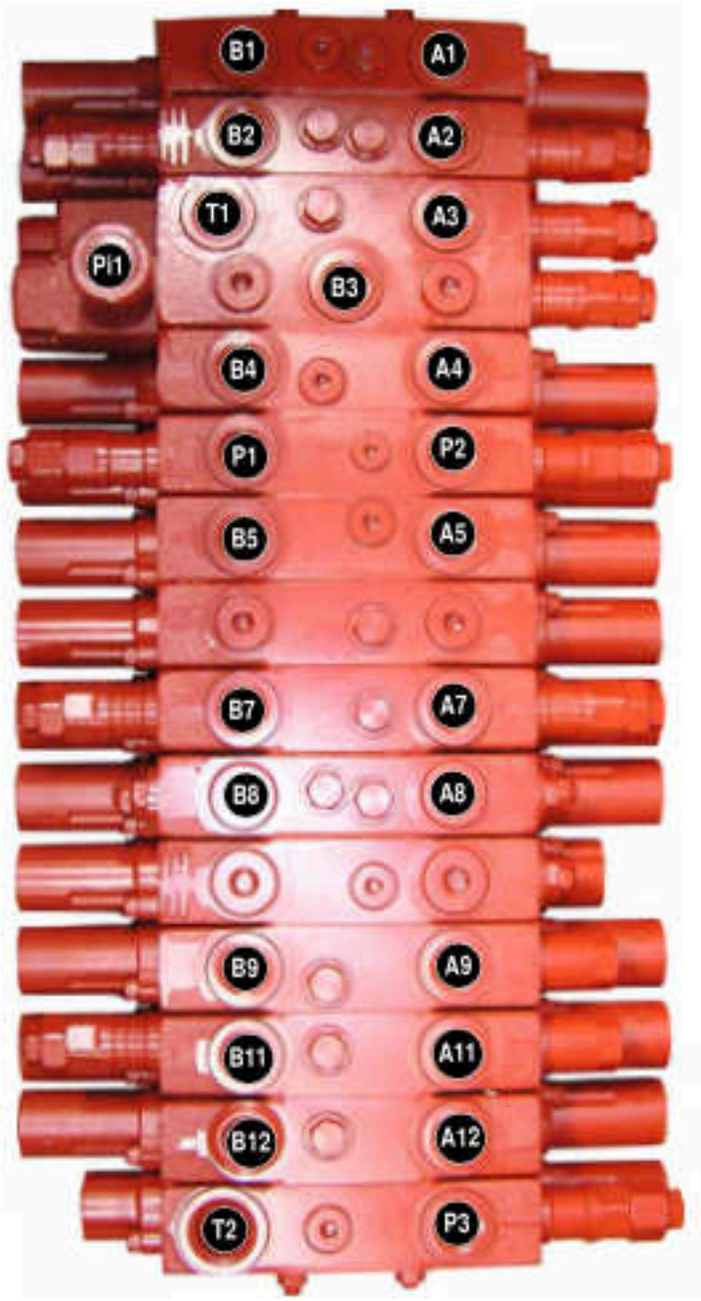
ON/OFF setting status	Voltage	Status
ON	1.75 [V] and below	OK: normal
	Over 1.75 [V]	NG: wiring harness short-circuited with power supply or E-ECU error
OFF	2.5 [V] and above	OK: normal
	Under 2.5 [V]	NG: wiring harness short-circuited to GND or E-ECU error

NG	• Check whether the wiring harness is damaged, or whether the wiring is correct. • Replace the wiring harness.
OK	Replace the E-ECU.

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5.2 Main valve block

Ports



Stick 2

Bucket

Boom

Left-hand side drive

Input P1 P2

Right-hand side drive

Boom 2

Stick

Auxiliary hydraulics

Auxiliary hydraulics flow rate adjustment

Swivel boom

Stabiliser blade

Rotating the upper carriage

Input P3 output T2

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Boom lubrication points



Fig. 51: Boom lubrication points

☞ *Apply grease to lubrication points **D** on the boom.*

Lubrication points on the stick

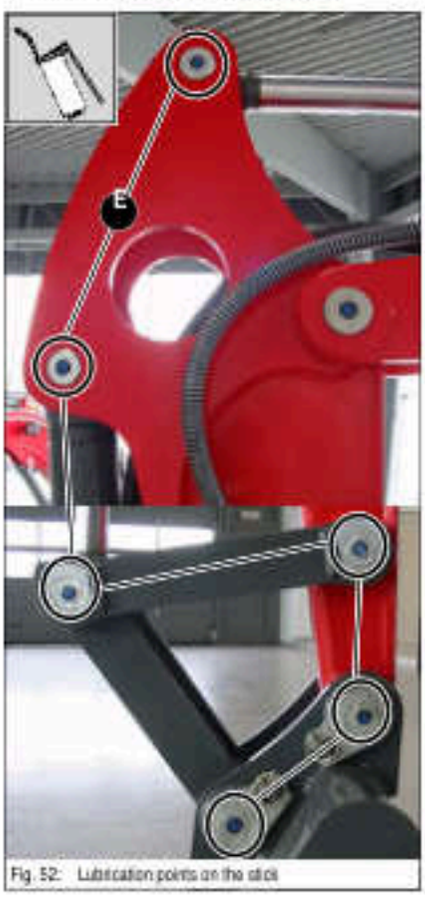


Fig. 52: Lubrication points on the stick

☞ *Apply grease to lubrication points **E** on the stick.*

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5.18 Hydraulics diagram

Gear motor

Stabiliser blade ram

3rd control circuit option

Offset ram

Auxiliary hydraulics

Stick ram

Travelling drive (right)

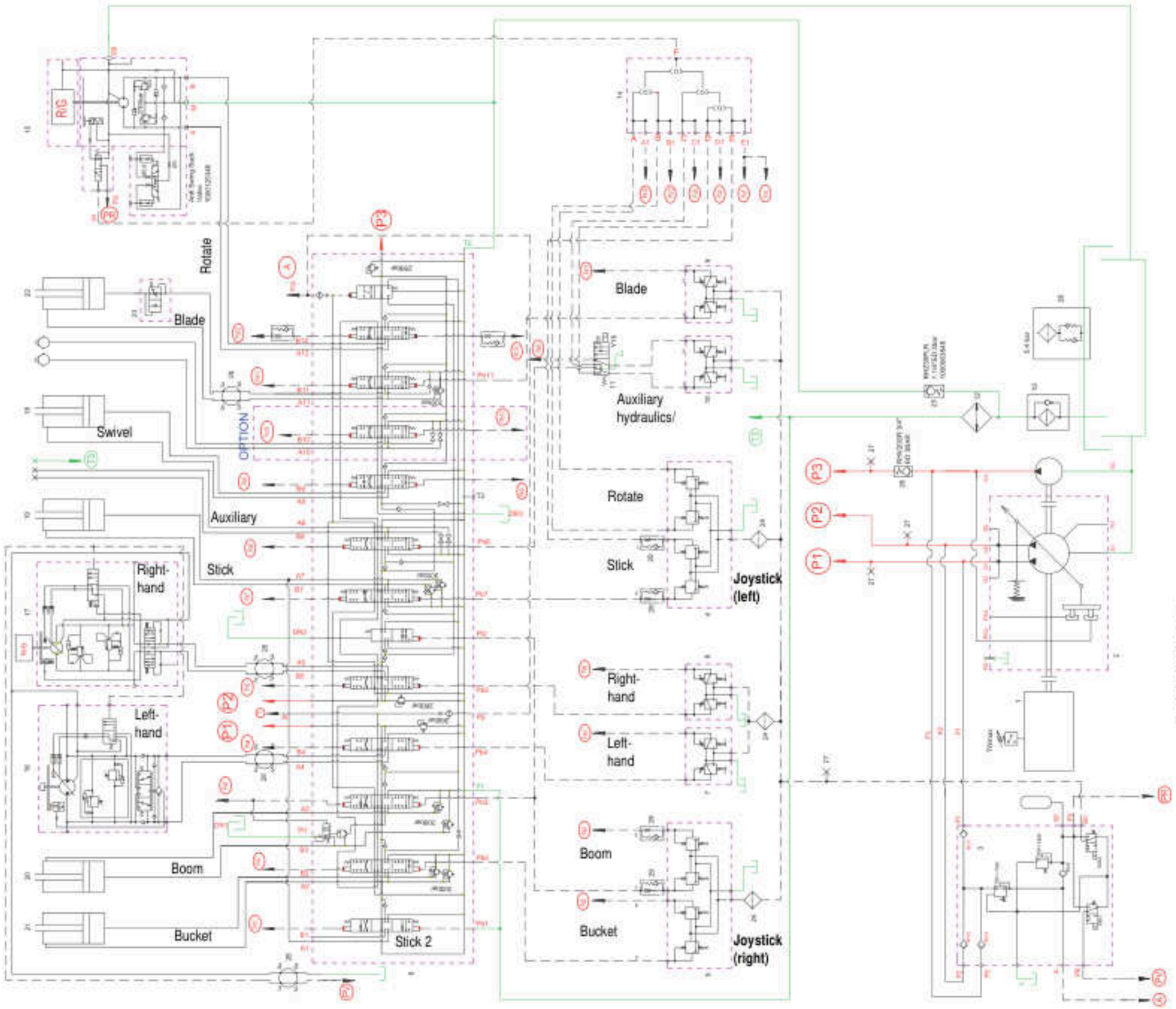
Travelling drives from serial no. AC02794 (auto2speed)

Travelling drive (left)

Travelling drives up to serial no. AC02793

Boom ram

Bucket ram



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