

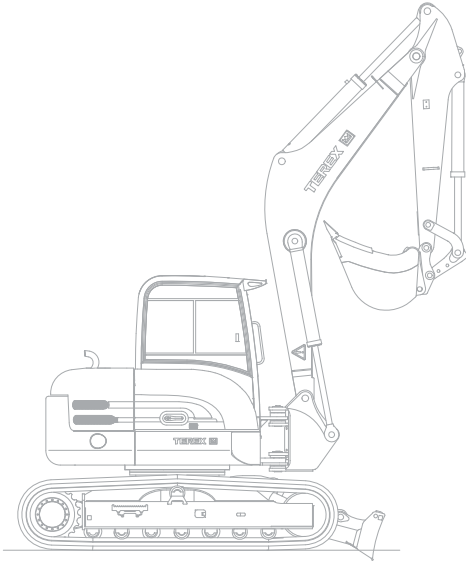


TEREX®

TC 15 SERVICE - MANUAL

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PRESSURE AND SETTING VALUES

Main pressure relief valve (high idle): max. bar 165

LINE RELIEF PRESSURES

- travel left (valves in the motor):	bar	----
- travel right (valves in the motor):	bar	----
- slewing (valves at the slew motor):	bar	140 (high idle and service temperature, measured at pressure port P1)
- dipperstick:	bar	210 / 210
- bucket:	bar	210 / 210
- boom lift / lower:	bar	210 / 160
- breaker / slew bucket / grab rotation:	bar	----
- articulation:	bar	anti cavitation
- dozer blade:	bar	----

CYCLE TIMES

Boom up / down to the ground:	s	3.0 / 2.9
Dipperstick extend / retract:	s	2.6 / 2.9
Bucket extend / retract:	s	2.1 / 2.4
Slew speed (max.)	min ⁻¹	10

LUBRICANTS

Engine oil:	see engine instruction book
Hydraulic oil:	see operation manual
Transmission oil:	MIL-L-2105 B or API-GL5, SAE 85 W 90 LS or SAE 90 LS
Multiple-purpose grease:	acc. to DIN 51825. Dripping point over 170° C. With lithium.

MAINTENANCE PARTS

see operation manual

CAPACITIES

ltr.

Fuel:	approx.	30.0	diesel
Engine oil, engine and filter:	approx.	3.4 + 0.2	HD-oil (change)
Hydraulic oil, tank and system:	approx.	35.0	hydraulic oil
Hydraulic oil tank:	approx.	25.0	hydraulic oil (change)
Travel gear:	approx.	0.3	transmission oil, each
Slew gear:	approx.	0.07	transmission oil
Cooling agent:	approx.	4.2	water with anticorrosive and anti-freeze agent

The values stated are approximate.
The level indicator is always decisive.

DIESEL ENGINE

Manufacturer:		Mitsubishi
Type:		L 3 E - W 262 KL
Performance acc. to DIN 70020 + ECE-R24: kW		13.0 at 2,250 min ⁻¹
Construction:		3 cylinders in line
Cooling:		water / anti-freeze agent
Capacity:	cm ³	952
High idle:	min ⁻¹	2.450 ⁺³⁵ / ₋₁₀
Low idle:	min ⁻¹	1.020 ⁺⁵⁰
Spec. fuel consumption (full load):	g/kWh	247
Fuel bleeding:		automatic
Tappet clearance - inlet / exhaust:	mm	0.25 (cold)
Injection timing:	°	17 before upper dead centre
Torque of cylinder head studs:	Nm	M 10: 75 - 85 M 8: 20 - 30
Electric fuel pump:	bar l/min	0,18 0.37
Injection pressure (valve opening pressure):	bar	140
Further data:		see engine operating manual

ELECTRICAL SYSTEM

Voltage:	V	12
Battery:	V/Ah	12 / 74 / 680 (EN)
Generator:	V/A	12 / 40
Starter:	V/kWh	12 / 1.7
Starting aid:		3 glow plugs, glow time controlled
Lighting:		working headlight H3

TRANSMISSION

Travel motors:	make/type	SOM MOR 15
Travel gears:	make/type	SOM PGR 132 N
Travel speed:	km/h	0 to 2.4

EXCAVATOR AND TRAVEL HYDRAULICS

Hydraulic pump:	make	Haldex WP 09 A2
Flow rate:	l/min	33,6 + 19,2
Cut off valve:		pump integrated
Cut off pressure (high idle):	bar	110 ₋₅ (service temperature)
Pilot pressure (high idle):	bar	28 (service temperature)
Pressure reducing valve with accu	make	Hydac
Valve bank:	type	Rexroth 9 SX 10
Cross servo control stick:	type	Rexroth 4TH 6
Flow at additional circuit	l/min	at 100 bar → approx. 32 at 140 bar → approx. 26

SLEW DRIVE

Slew motor with gearbox:	make	Nachi PCR-01B-05A
Slew pressure (valves at slew motor):	bar	125 (high idle and service temperature, measured at pressure port P1)

PRESSURE AND SETTING VALUES

Main pressure relief valve (high idle): max. bar 165

LINE RELIEF PRESSURES

- travel left (valves in the motor):	bar	----
- travel right (valves in the motor):	bar	----
- slewing (valves at the slew motor):	bar	140 (high idle and service temperature, measured at pressure port P1)
- dipperstick:	bar	210 / 210
- bucket:	bar	210 / 210
- boom lift / lower:	bar	210 / 160
- breaker / slew bucket / grab rotation:	bar	----
- articulation:	bar	anti cavitation
- dozer blade:	bar	----

CYCLE TIMES

Boom up / down to the ground:	s	3.0 / 2.9
Dipperstick extend / retract:	s	2.6 / 2.9
Bucket extend / retract:	s	2.1 / 2.4
Slew speed (max.)	min ⁻¹	10

LUBRICANTS

Engine oil:	see engine instruction book
Hydraulic oil:	see operation manual
Transmission oil:	MIL-L-2105 B or API-GL5, SAE 85 W 90 LS or SAE 90 LS
Multiple-purpose grease:	acc. to DIN 51825. Dripping point over 170° C. With lithium.

MAINTENANCE PARTS

see operation manual

CAPACITIES

ltr.

Fuel:	approx.	30.0	diesel
Engine oil, engine and filter:	approx.	3.4 + 0.2	HD-oil (change)
Hydraulic oil, tank and system:	approx.	35.0	hydraulic oil
Hydraulic oil tank:	approx.	25.0	hydraulic oil (change)
Travel gear:	approx.	0.3	transmission oil, each
Slew gear:	approx.	0.07	transmission oil
Cooling agent:	approx.	4.2	water with anticorrosive and anti-freeze agent

The values stated are approximate.
The level indicator is always decisive.

DIESEL ENGINE TIER 4

Manufacturer:		Mitsubishi
Type:		L 3 E - W 462 KL
Performance acc. to DIN 70020 + ECE-R24: kW		13.1 at 2,250 min ⁻¹
Construction:		3 cylinders in line
Cooling:		water / anti-freeze agent
Capacity:	cm ³	952
High idle:	min ⁻¹	2.450 ⁺³⁵ / ₋₁₀
Low idle:	min ⁻¹	1.020 ⁺⁵⁰
Spec. fuel consumption (full load):	g/kWh	272
Fuel bleeding:		automatic
Tappet clearance - inlet / exhaust:	mm	0.25 (cold)
Injection timing:	°	15 before upper dead centre
Torque of cylinder head studs:	Nm	M 10: 75 - 85 M 8: 20 - 30
Electric fuel pump:	bar l/min	0,18 0.9
Injection pressure (valve opening pressure):		
Further data:		see engine operating manual

ELECTRICAL SYSTEM

Voltage:	V	12
Battery:	V/Ah	12 / 74 / 680 (EN)
Generator:	V/A	12 / 40
Starter:	V/kW	12 / 1.7
Starting aid:		3 glow plugs, glow time controlled
Lighting:		working headlight H3

TRANSMISSION

Travel motors:	make/type	SOM MOR 15
Travel gears:	make/type	SOM PGR 132 N
Travel speed:	km/h	0 to 2.4

EXCAVATOR AND TRAVEL HYDRAULICS

Hydraulic pump:	make	Haldex WP 09 A2
Flow rate:	l/min	31,5 + 18
Cut off valve:		pump integrated
Cut off pressure (high idle):	bar	110 ₋₅ (service temperature)
Pilot pressure (high idle):	bar	28 (service temperature)
Pressure reducing valve with accu	make	Hydac
Valve bank:	type	Rexroth 9 SX 10
Cross servo control stick:	type	Rexroth 4TH 6
Flow at additional circuit	l/min	at 100 bar → approx. 32 at 140 bar → approx. 26

SLEW DRIVE

Slew motor with gearbox:	make	Nachi PCR-01B-05A
Slew pressure (valves at slew motor):	bar	125 (high idle and service temperature, measured at pressure port P1)

PRESSURE AND SETTING VALUES

Main pressure relief valve (high idle): max. bar 165

LINE RELIEF PRESSURES

- travel left (valves in the motor):	bar	----
- travel right (valves in the motor):	bar	----
- slewing (valves at the slew motor):	bar	$\Delta P = 93 \pm 3$ bar; (high idle, service temperature, ΔP between M1 and M2)
- dipperstick:	bar	210 / 210
- bucket:	bar	210 / 210
- boom lift / lower:	bar	210 / 160
- breaker / slew bucket / grab rotation:	bar	----
- articulation:	bar	anti cavitation
- dozer blade:	bar	----

CYCLE TIMES

Boom up / down to the ground:	s	3.0 / 2.9
Dipperstick extend / retract:	s	2.6 / 2.9
Bucket extend / retract:	s	2.1 / 2.4
Slew speed (max.)	min ⁻¹	10

LUBRICANTS

Engine oil:	see engine instruction book
Hydraulic oil:	see operation manual
Transmission oil:	MIL-L-2105 B or API-GL5, SAE 85 W 90 LS or SAE 90 LS
Multiple-purpose grease:	acc. to DIN 51825. Dripping point over 170° C. With lithium.

MAINTENANCE PARTS

see operation manual

CAPACITIES

ltr.

Fuel:	approx.	30.0	diesel
Engine oil, engine and filter:	approx.	3.4 + 0.2	HD-oil (change)
Hydraulic oil, tank and system:	approx.	35.0	hydraulic oil
Hydraulic oil tank:	approx.	25.0	hydraulic oil (change)
Travel gear:	approx.	0.3	transmission oil, each
Slew gear:	approx.	0.1	transmission oil
Cooling agent:	approx.	4.2	water with anticorrosive and anti-freeze agent

The values stated are approximate.
The level indicator is always decisive.

DIESEL ENGINE

Manufacturer:		Mitsubishi
Type:		L 3 E - W 262 KL
Performance acc. to DIN 70020 + ECE-R24: kW		13.0 at 2,250 min ⁻¹
Construction:		3 cylinders in line
Cooling:		water / anti-freeze agent
Capacity:	cm ³	952
High idle:	min ⁻¹	2.450 ⁺³⁵ / ₋₁₀
Low idle:	min ⁻¹	1.020 ⁺⁵⁰
Spec. fuel consumption (full load):	g/kWh	247
Fuel bleeding:		automatic
Tappet clearance - inlet / exhaust:	mm	0.25 (cold)
Injection timing:	°	17 before upper dead centre
Torque of cylinder head studs:	Nm	M 10: 75 - 85 M 8: 20 - 30
Electric fuel pump	bar l/min	0,18 0,37
Injection pressure (valve opening pressure):	bar	140
Further data:		see engine operating manual

ELECTRICAL SYSTEM

Voltage:	V	12
Battery:	V/Ah	12 / 74 / 680 (EN)
Generator:	V/A	12 / 40
Starter:	V/kWh	12 / 1.7
Starting aid:		3 glow plugs, glow time controlled
Lighting:		working headlight H3

TRANSMISSION

Travel motors:	make/type	SOM MOR 15
Travel gears:	make/type	SOM PGR 132 N
Travel speed:	km/h	0 to 2.7

EXCAVATOR AND TRAVEL HYDRAULICS

Hydraulic pump:	make	Haldex WP 09 A2
Flow rate:	l/min	33,6 + 19,2
Cut off valve:		pump integrated
Cut off pressure (high idle):	bar	110 ₋₅ (service temperature)
Pilot pressure (high idle):	bar	28 (service temperature)
Pressure reducing valve with accu	make	Hydac
Valve bank:	type	Rexroth 9 SX 10
Cross servo control stick:	type	Rexroth 4TH 5
Flow at additional circuit	l/min	at 100 bar → approx. 32 at 140 bar → approx. 26

SLEW DRIVE

Slew motor with gearbox:	make	SOM SD50 + GWS200
Slew pressure (valves at slew motor):	bar	140 (high idle and service temperature, measured at pressure port P1)

PRESSURE AND SETTING VALUES

Main pressure relief valve (high idle): max. bar 165

LINE RELIEF PRESSURES

- travel left (valves in the motor):	bar	----
- travel right (valves in the motor):	bar	----
- slewing (valves at the slew motor):	bar	140 (high idle and service temperature, measured at pressure port P1)
- dipperstick:	bar	210 / 210
- bucket:	bar	210 / 210
- boom lift / lower:	bar	210 / 160
- breaker / slew bucket / grab rotation:	bar	----
- articulation:	bar	anti cavitation
- dozer blade:	bar	----

CYCLE TIMES

Boom up / down to the ground:	s	3.0 / 2.9
Dipperstick extend / retract:	s	2.6 / 2.9
Bucket extend / retract:	s	2.1 / 2.4
Slew speed (max.)	min ⁻¹	10

LUBRICANTS

Engine oil:	see engine instruction book
Hydraulic oil:	see operation manual
Transmission oil:	MIL-L-2105 B or API-GL5, SAE 85 W 90 LS or SAE 90 LS
Multiple-purpose grease:	acc. to DIN 51825. Dripping point over 170° C. With lithium.

MAINTENANCE PARTS

see operation manual

CAPACITIES

ltr.

Fuel:	approx.	30.0	diesel
Engine oil, engine and filter:	approx.	3.4 + 0.2	HD-oil (change)
Hydraulic oil, tank and system:	approx.	35.0	hydraulic oil
Hydraulic oil tank:	approx.	25.0	hydraulic oil (change)
Travel gear:	approx.	0.3	transmission oil, each
Slew gear:	approx.	0.07	transmission oil
Cooling agent:	approx.	4.2	water with anticorrosive and anti-freeze agent

The values stated are approximate.
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DIESEL ENGINE

Manufacturer:		Mitsubishi
Type:		L 3 E - W 262 KL
Performance acc. to DIN 70020 + ECE-R24: kW		13.0 at 2,250 min ⁻¹
Construction:		3 cylinders in line
Cooling:		water / anti-freeze agent
Capacity:	cm ³	952
High idle:	min ⁻¹	2.450 ⁺³⁵ / ₋₁₀
Low idle:	min ⁻¹	1.020 ⁺⁵⁰
Spec. fuel consumption (full load):	g/kWh	247
Fuel bleeding:		automatic
Tappet clearance - inlet / exhaust:	mm	0.25 (cold)
Injection timing:	°	17 before upper dead centre
Torque of cylinder head studs:	Nm	M 10: 75 - 85 M 8: 20 - 30
Electric fuel pump	bar l/min	0,18 0,37
Injection pressure (valve opening pressure):	bar	140
Further data:		see engine operating manual

ELECTRICAL SYSTEM

Voltage:	V	12
Battery:	V/Ah	12 / 74 / 680 (EN)
Generator:	V/A	12 / 40
Starter:	V/kWh	12 / 1.7
Starting aid:		3 glow plugs, glow time controlled
Lighting:		working headlight H3

TRANSMISSION

Travel motors:	make/type	SOM MOR 15
Travel gears:	make/type	SOM PGR 132 N
Travel speed:	km/h	0 to 2.7

EXCAVATOR AND TRAVEL HYDRAULICS

Hydraulic pump:	make	Haldex WP 09 A2
Flow rate:	l/min	33,6 + 19,2
Cut off valve:		pump integrated
Cut off pressure (high idle):	bar	110 ₋₅ (service temperature)
Pilot pressure (high idle):	bar	28 (service temperature)
Pressure reducing valve with accu	make	Hydac
Valve bank:	type	Rexroth 9 SX 10
Cross servo control stick:	type	Rexroth 4TH 5
Flow at additional circuit	l/min	at 100 bar → approx. 32 at 140 bar → approx. 26

SLEW DRIVE

Slew motor with gearbox:	make	Nachi PCR-01B-05A
Slew pressure (valves at slew motor):	bar	125 (high idle and service temperature, measured at pressure port P1)

PRESSURE AND SETTING VALUES

Main pressure relief valve (high idle): max. bar 165

LINE RELIEF PRESSURES

- travel left (valves in the motor):	bar	----
- travel right (valves in the motor):	bar	----
- slewing (valves at the slew motor):	bar	140 (high idle and service temperature, measured at pressure port P1)
- dipperstick:	bar	210 / 210
- bucket:	bar	210 / 210
- boom lift / lower:	bar	210 / 160
- breaker / slew bucket / grab rotation:	bar	----
- articulation:	bar	anti cavitation
- dozer blade:	bar	----

CYCLE TIMES

Boom up / down to the ground:	s	3.0 / 2.9
Dipperstick extend / retract:	s	2.6 / 2.9
Bucket extend / retract:	s	2.1 / 2.4
Slew speed (max.)	min ⁻¹	10

LUBRICANTS

Engine oil:	see engine instruction book
Hydraulic oil:	see operation manual
Transmission oil:	MIL-L-2105 B or API-GL5, SAE 85 W 90 LS or SAE 90 LS
Multiple-purpose grease:	acc. to DIN 51825. Dripping point over 170° C. With lithium.

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see operation manual

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DIESEL ENGINE Tier 4

Manufacturer:		Mitsubishi
Type:		L 3 E - W 462 KL
Performance acc. to DIN 70020 + ECE-R24: kW		13.1 at 2,250 min ⁻¹
Construction:		3 cylinders in line
Cooling:		water / anti-freeze agent
Capacity:	cm ³	952
High idle:	min ⁻¹	2.450 ⁺³⁵ / ₋₁₀
Low idle:	min ⁻¹	1.020 ⁺⁵⁰
Spec. fuel consumption (full load):	g/kWh	272
Fuel bleeding:		automatic
Tappet clearance - inlet / exhaust:	mm	0.25 (cold)
Injection timing:	°	15 before upper dead centre
Torque of cylinder head studs:	Nm	M 10: 75 - 85 M 8: 20 - 30
Electric fuel pump		
	l/min	0,9
Injection pressure (valve opening pressure):		
Further data:		see engine operating manual

ELECTRICAL SYSTEM

Voltage:	V	12
Battery:	V/Ah	12 / 74 / 680 (EN)
Generator:	V/A	12 / 40
Starter:	V/kWh	12 / 1.7
Starting aid:		3 glow plugs, glow time controlled
Lighting:		working headlight H3

TRANSMISSION

Travel motors:	make/type	SOM MOR 15
Travel gears:	make/type	SOM PGR 132 N
Travel speed:	km/h	0 to 2.7

EXCAVATOR AND TRAVEL HYDRAULICS

Hydraulic pump:	make	Haldex WP 09 A2
Flow rate:	l/min	31,5 + 18
Cut off valve:		pump integrated
Cut off pressure (high idle):	bar	110 ₋₅ (service temperature)
Pilot pressure (high idle):	bar	28 (service temperature)
Pressure reducing valve with accu	make	Hydac
Valve bank:	type	Rexroth 9 SX 10
Cross servo control stick:	type	Rexroth 4TH 5
Flow at additional circuit	l/min	at 100 bar → approx. 32 at 140 bar → approx. 26

SLEW DRIVE

Slew motor with gearbox:	make	Nachi PCR-01B-05A
Slew pressure (valves at slew motor):	bar	125 (high idle and service temperature, measured at pressure port P1)

Thank you very much for reading.

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