CEBM029702

Shop Manual

KOMATSU®

XT430-3
XT430L-3
XT445L-3
XT460L-3

CRAWLER FELLER BUNCHER

SERIAL NUMBERS	**XT430-3**	**A1101 and up**
	XT430L-3	**A2101 and up**
	XT445L-3	**A3101 and up**
	XT460L-3	**A5101 and up**

ENGINE **QSC 8.3 Tier 3**

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Cylinders

BOOM	TYPE	Bolt-on bearing retainer design tested to 30 MPa (4,351 psi)
	CYLINDER ROD	Induction Hardened Chrome
	ROD DIAMETER	102 mm (4.00 in)
	BARREL O.D. DIAMETER	XT445L-3: 197 mm (7.75 in)
		XT460L-3: 220.6 mm (9.0 in)
	BORE	XT445L-3: 165 mm (6.5 in)
		XT460L-3: 177.8 mm (7.0 in)
	PISTON RETAINING NUT	2.75-12 UNF
	RETRACTED LENGTH	152 cm (60.00 in)
	STROKE	107 cm (42 in)
	PIN SIZES	65 mm (3.00 in) rod and base
ARM	TYPE	Bolt-on bearing retainer design tested to 30 MPa (4,351 psi)
	CYLINDER ROD	Induction Hardened Chrome
	ROD DIAMETER	XT445L-3: 89 mm (3.50 in)
		XT460L-3: 102 mm (4.0 in)
	BARREL O.D. DIAMETER	XT445L-3: 165 mm (6.5 in)
		XT460L-3: 213.9 mm (8.42 in)
	BORE	XT445L-3: 140 mm (5.5 in)
		XT460L-3: 165.1 mm (6.5 in)
	PISTON RETAINING BOLT	2.00-12 UNF
	RETRACTED LENGTH	142 cm (56.00 in)
	STROKE	87 cm (34.25 in)
	PIN SIZES	65 mm (2.56 in) rod and base
Tool Tilt	TYPE	Bolt-on bearing retainer design tested to 28 MPa (4,061 psi)
	CYLINDER ROD	Induction Hardened Chrome
	ROD DIAMETER	76 mm (3.00 in)
	BARREL O.D. DIAMETER	159 mm (6.25 in)
	BORE	127 mm (5.00 in)
	PISTON RETAINING BOLT	2.00-12 UNF
	RETRACTED LENGTH	154 cm (60.50 in)
	STROKE	107 cm (42.00 in)
	PIN SIZES	64 mm (2.50 in) rod and base

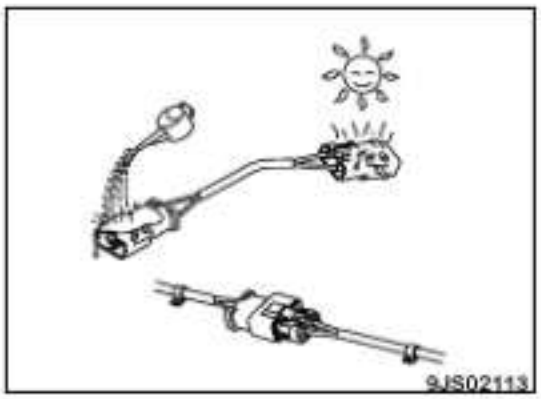
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Handling Electric Equipment and Hydraulic Components

To maintain the performance of the machine over a long period, and to prevent failures or other troubles before they occur, correct "operation", "maintenance and inspection", "troubleshooting", and "repairs" must be performed. This section deals particularly with correct repair procedures for mechatronics and is aimed at improving the quality of repairs. For this purpose, it gives sections on "Handling electric equipment" and "Handling hydraulic equipment" (particularly gear oil and hydraulic oil).

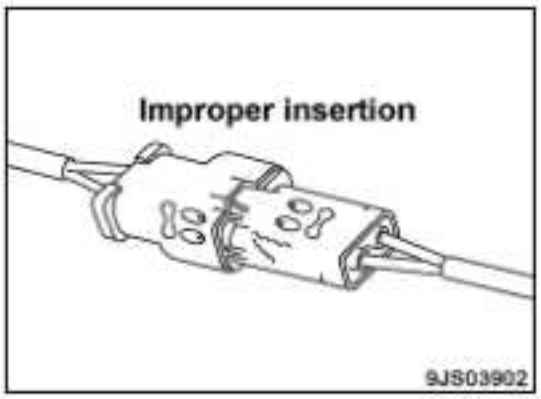
Points to remember when handling electric equipment

1. Handling wiring harnesses and connectors
   Wiring harnesses consist of wiring connecting one component to another component, connectors used for connecting and disconnecting one wire from another wire, and protectors or tubes used for protecting the wiring.
   Compared with other electrical components fitted in boxes or cases, wiring harnesses are more likely to be affected by the direct effects of rain, water, heat, or vibration. Furthermore, during inspection and repair operations, they are frequently removed and installed again, so they are likely to suffer deformation or damage. For this reason, it is necessary to be extremely careful when handling wiring harnesses.

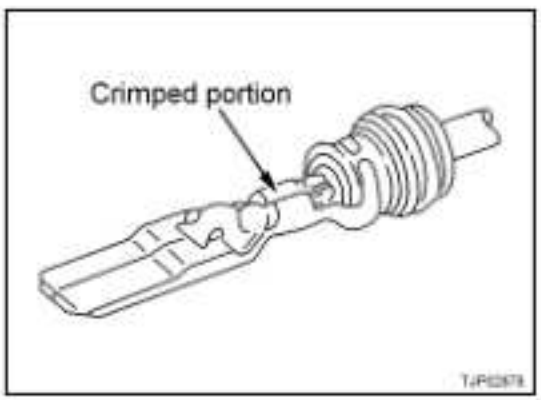


2. Main failures occurring in wiring harness

   A. Defective contact of connectors (defective contact between male and female)
   Problems with defective contact are likely to occur because the male connector is not properly inserted into the female connector, or because one or both of the connectors is deformed or the position is not correctly aligned, or because there is corrosion or oxidation of the contact surfaces. The corroded or oxidized contact surfaces may become shiny again (and contact may become normal) by connecting and disconnecting the connector about ten times.



   B. Defective crimping or soldering of connectors
   The pins of the male and female connectors are in contact at the crimped terminal or soldered portion, but if there is excessive force brought to bear on the wiring, the plating at the joint will peel and cause improper connection or breakage.



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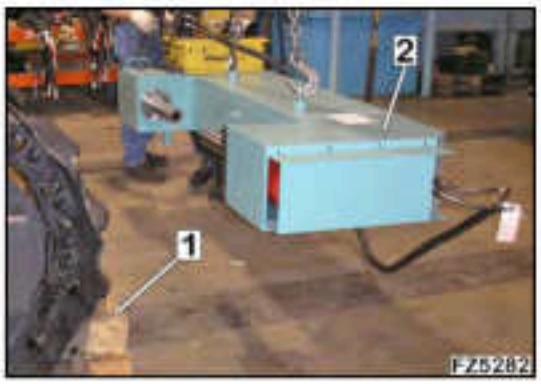
MEMORANDUM

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3. Follow the "Decreasing Track Tension" procedure and completely remove the tension from the track assembly.

4. Block the track up with wood blocks to keep the tension off the master pin before removing the pin (1).

5. Attach a pin inserter to a suitable lifting device (2).



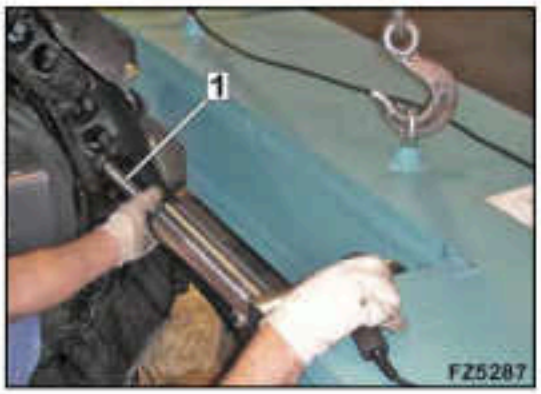
6. Line up the pin inserter to the pin.



7. Insert the pin inserter push pin (1) and press the pin out of the track.

8. Drive the machine in reverse until the track end is on top of the rear drive sprocket. Then use a suitable lifting device to remove the track end from the sprocket so it is on the ground.

9. Lay the new set of track that is replacing the track on the machine and pin the new track to the present track with the pin inserter.



10. Drive the machine in reverse until the machine is on the new track and the master pin that joins the two sets of tracks is approximately three feet in front of track idler (1).

11. Remove the old track from the new track.



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10. Collapse the lock ring (1) on the bottom back side of the turbo charger so the turbo charger can be rotated.

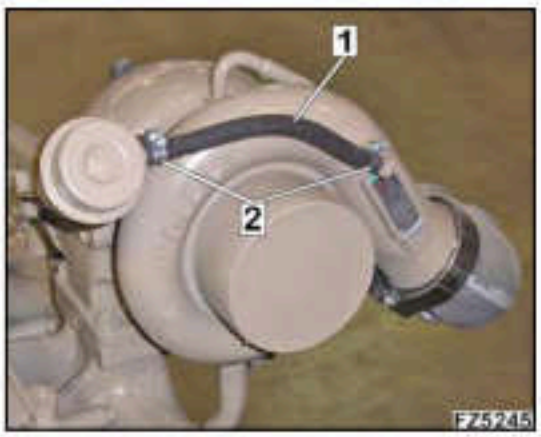


11. Rotate the turbo charger so the pipe (1) is eight inches from the manifold.



12. Install hose (1) on turbo charger with two clamps (2).

13. Ensure the lock ring (1) is seated. Tap the tabs of the lock ring apart with a hammer.

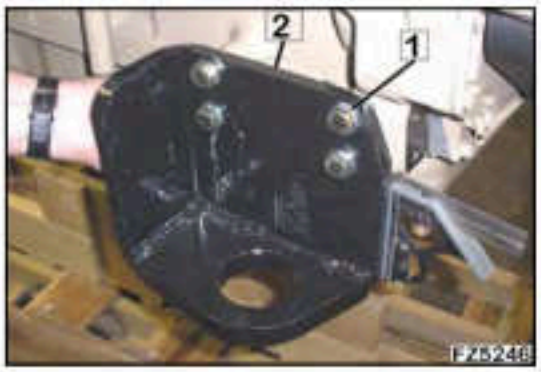


14. Apply LT-2 to four bolts (1) and install the front right engine mount (2) onto the engine with four bolts (1) and washers. Do not tighten the bolts.

15. Square right front motor mount (2) to the engine with a square placed as shown.

16. Tighten the four bolts (1). .

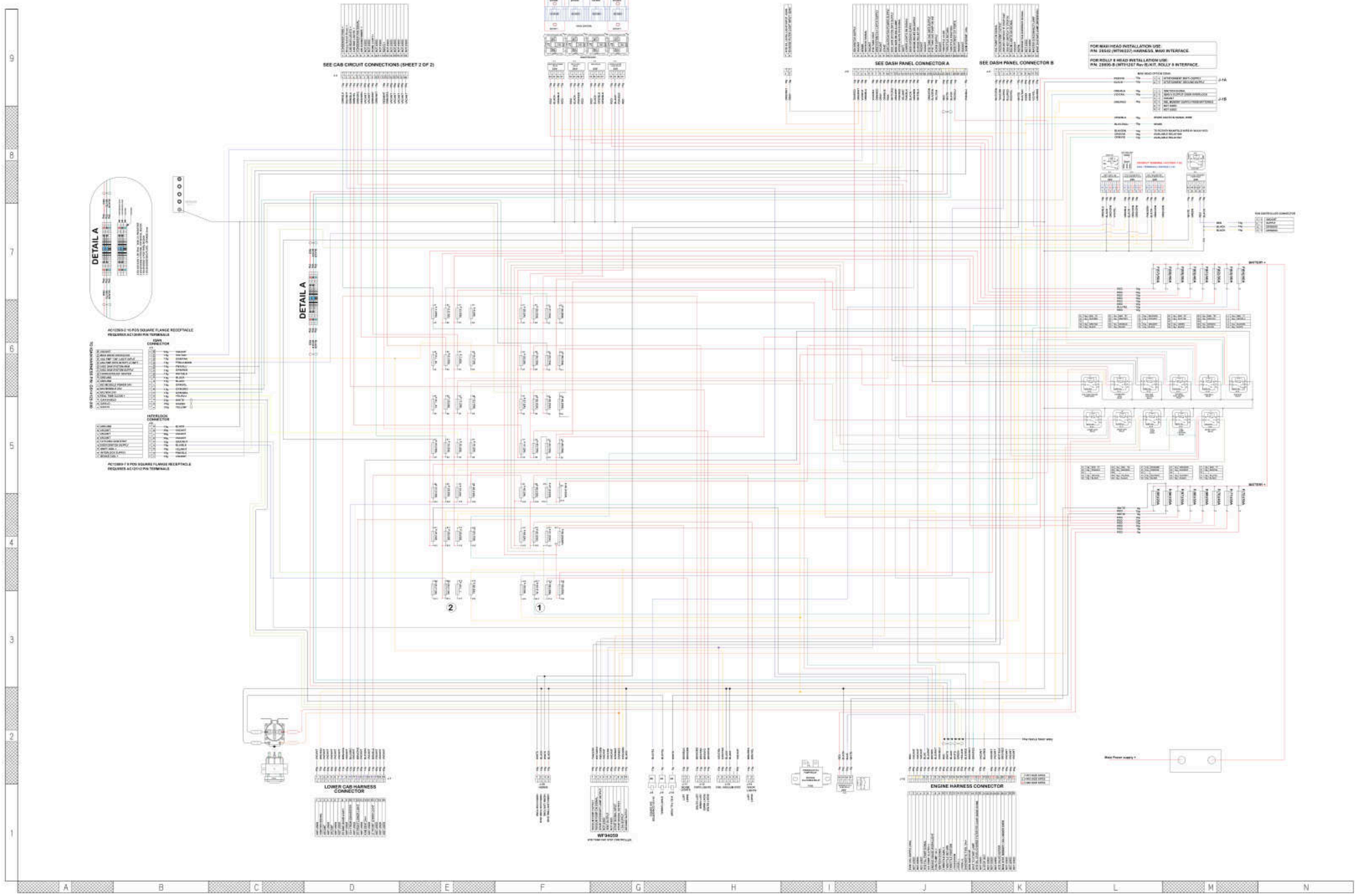
Torque the bolts to 92 lbf ft (125 N•m)



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Load Center Electrical Schematic

XT430-3, XT430L-3, XT445L-3, XT460L-3



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