

Due Upon Receipt

Hour Meter/Odometer

Make and Model

Serial Number

Komatsu WA320-3

WA320H21286

14897

Description

Amount

Labor

Rebuild kit

New crankshaft

New rods

New camshaft and lifters

Used block

New oil pump

Refurbished cylinder head

Refurbished fuel injection pump

Injectors

Turbocharger

Water pump

Starter

Flywheel ring gear

Temp sensor, thermostat, misc

Engine filters, turbo line, belt

Shutoff solenoid

Torque converter

Traveled to customer. Assessed unit and found failed engine. Removed and disassembled engine. Found ruined crankshaft, rods, block, camshaft and turbo. All damages were due to crankshaft being forced forward. Had cylinder head and injection pump refurbished. Reassembled engine with a replacement block, a new crankshaft, new rods, new cam with lifters, new pistons, rings, cylinder liners, bearings, seals, gaskets, refurbished head oil pump, water pump, turbo refurbished injection pump, injectors, flywheel ring gear, starter, turbo oil drain tube, filters, fuel shutdown solenoid and misc before engine was installed. Investigated cause of initial problem. Found torque converter hub was broken in the center. Acquired a replacement hub and installed the engine with new fluids. Unit would not move due to electrical transmission control issues. Found schematics were unreliable due to the unit was manufactured for use outside of the USA. Eventually found and repaired all the broken transmission control wires. Changed transmission and hydraulic oil and filters.

Subtotal

Sales Tax

Total

\$24,928.18

Thank you for your business.



Due Upon Receipt

Make and Model

Serial Number

Hour Meter/Odometer

Komatsu 320H-3

H21285

4903

Description

Amount

Unit was plugging up fuel filters due to trash in the fuel tank. Drained and removed fuel tank. Cleaned then reinstalled fuel tank. Replaced fuel filter and tested. Found alternator pulley was egged out and the alternator shaft was damaged. Replaced alternator and pulley. Corrected battery installation. Replaced bad ignition switch. Added hydraulic oil. Misc repairs.

Ignition switch

Alternator

Filter

Hydraulic oil

Shop Supplies

Subtotal

Sales Tax