

TROUBLESHOOTING GUIDE

1. ENGINE

※ This guide is not intended to cover every conditions, however many of the more common possibilities are listed.

| Trouble | Service | Remark |
|-------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|
| The engine oil pressure lamp lights ON when engine speed is raised after completion of warm up. | <ul style="list-style-type: none"> • Add the oil to the specified level. • Replace the oil filter cartridge. • Check oil leakage from the pipe or the joint. • Replace the monitor. | |
| Steam is emitted from the top part of the radiator (the pressure valve). Coolant level warning lamp lights ON. | <ul style="list-style-type: none"> • Supply the coolant and check leakage. • Adjust fan belt tension. • Wash out inside of cooling system. • Clean or repair the radiator fin. • Check the thermostat. • Tighten the radiator cap firmly or replace the packing of it. • Replace the monitor. | |
| The engine does not start when the starting motor is turned over. | <ul style="list-style-type: none"> • Add fuel. • Repair where air is leaking into fuel system. • Check the injection pump or the nozzle. • Check the valve clearance. • Check engine compression pressure. • In cold weather, check if fuel warmer system is working normal. | |
| Exhaust gas is white or blue. | <ul style="list-style-type: none"> • Adjust to specified oil quantity. • Replace with specified fuel. | |
| Exhaust gas occasionally turns black. | <ul style="list-style-type: none"> • Clean or replace the air cleaner element. • Check the nozzle. • Check engine compression pressure. • Clean or replace the turbocharger. | |
| Combustion noise occasionally changes to breathing sound. | <ul style="list-style-type: none"> • Check the nozzle. | |
| Unusual combustion noise or mechanical noise. | <ul style="list-style-type: none"> • Check with specified fuel. • Check over-heating. • Replace the muffler. • Adjust valve clearance. | |

2. ELECTRICAL SYSTEM

| Trouble | Service | Remark |
|------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|
| Lamp does not glow brightly even when engine runs at high speed. Lamp flickers while engine runs. | <ul style="list-style-type: none"> • Check for loose terminals and open-circuit wiring. • Adjust belt tension. | |
| Battery charging lamp does not go out even when engine runs at high speed. | <ul style="list-style-type: none"> • Check the alternator. • Check and repair wiring. | |
| Unusual noise is emitted from the alternator. | <ul style="list-style-type: none"> • Check the alternator. | |
| Starting motor does not turn when starting switch is turned ON. | <ul style="list-style-type: none"> • Check and repair the wiring. • Charge the battery. • Check the starting motor. • Check the safety relay. | |
| The pinion of the starting motor keeps going in and out. | <ul style="list-style-type: none"> • Charge the battery. • Check the safety relay. | |
| Starting motor turns the engine sluggishly. | <ul style="list-style-type: none"> • Charge the battery. • Check the starting motor. | |
| The starting motor disengages before the engine starts up. | <ul style="list-style-type: none"> • Check and repair the wiring. • Charge the battery. | |
| The engine warming up lamp does not go ON. | <ul style="list-style-type: none"> • Check and repair wiring. • Check the monitor. | |
| The engine oil pressure lamp does not light up when engine is stationary (when the starting switch is in ON position.) | <ul style="list-style-type: none"> • Check the monitor. • Check the caution lamp switch. | |
| Battery charging lamp does not light up when the engine is stationary. (when the starting switch is in ON position.) | <ul style="list-style-type: none"> • Check the monitor. • Check and repair the wiring. | |

3. OTHERS

| Trouble | Service | Remark |
|-------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------|--------|
| Track slip out of place. Excessive wear of the sprocket. | <ul style="list-style-type: none"> • Adjust tension of track. | |
| Bucket either rises slowly or not at all. | <ul style="list-style-type: none"> • Add oil to specified level. | |
| Slow speed of travel, swing, boom, arm and bucket. | <ul style="list-style-type: none"> • Add oil to specified level. | |
| Unusual noise emitted from pump. | <ul style="list-style-type: none"> • Clean the hydraulic tank strainer. | |
| Excessive oil temperature rise of hydraulic oil. | <ul style="list-style-type: none"> • Clean the oil cooler. • Adjust fan belt tension. • Add oil to specified level. | |