SEAM020100

Operation & Maintenance Manual

KOMATSU®

BR350JG-1

MOBILE CRUSHER

SERIAL NUMBERS BR350JG-1 - 1005 and up

October 1998

Copyright 1998 Komatsu America International Company

MidWestTech | Komatsu BR350JG-1 Mobile Crusher Operation & Maintenance Manual | P... Order the manual at mid-west-tech.com >

5. CONTENTS

1. **Foreword** 0- 1

2. **Safety information** 0- 2

3. **Introduction** 0- 3

4. **Location of plates, table to enter serial No. and distributor** 0- 4

SAFETY

6. **General precautions** 1- 2

7. **Precautions during operation** 1- 6
   - 7.1 Before starting engine 1- 6
   - 7.2 When and after starting engine 1- 7
   - 7.3 Crusher (Crushing) operations 1-11
   - 7.4 Transportation 1-14
   - 7.5 Battery 1-15
   - 7.6 Towing 1-16

8. **Precautions for maintenance** 1-17
   - 8.1 Before carrying out maintenance 1-17
   - 8.2 During maintenance 1-20

9. **Position for attaching safety labels** 1-24

OPERATION

10. **General view** 2- 2
    - 10.1 General view of machine 2- 2

11. **Explanation of components** 2- 3
    - 11.1 Machine monitor 2- 3
    - 11.2 Switches 2- 9
    - 11.3 Control levers 2-12
    - 11.4 Remote control switches 2-13
    - 11.5 Cap and cover with lock 2-14
    - 11.6 Dust indicator 2-14
    - 11.7 Fusible link 2-15
    - 11.8 Fuses 2-15
    - 11.9 Tool box (Spare) 2-16
    - 11.10 Grease gun holder 2-16

MidWestTech | Komatsu BR350JG-1 Mobile Crusher Operation & Maintenance Manual | Pu... Order the manual at mid-west-tech.com >

12. Operation 2-17
12.1 Checks before starting engine 2-17
12.2 Starting engine 2-32
12.3 Operations and checks after starting engine 2-34
12.4 Moving the machine off 2-36
12.5 Steering the machine 2-38
12.6 Stopping the machine 2-40
12.7 Jaw crusher operations 2-41
12.8 Water sprinkler 2-46
12.9 Checks after stopping jaw crusher operations 2-47
12.10 Checks after operating 2-47
12.11 Stopping engine 2-47
12.12 Checks after stopping engine 2-48
12.13 Locking 2-49
12.14 Running in the jaw crusher 2-50
12.15 Precautions for using jaw crusher 2-51
12.16 Efficient use of jaw crusher 2-53
12.17 Work done with mobile crusher 2-60
12.18 Inhibited operations 2-62
12.19 Precautions for traveling up and down hills 2-63

13. Transportation 2-64
13.1 Loading and unloading the machine on trailer 2-64
13.2 Fixing method of machine 2-66
13.3 Precautions for loading 2-69

14. Cold weather operation 2-70
14.1 Precautions for low temperature 2-70
14.2 Precautions after completion of work 2-72
14.3 After cold weather 2-72

15. Long-term storage 2-73
15.1 Before storage 2-73
15.2 During storage 2-73
15.3 After storage 2-73
15.4 Starting machine after long-term storage 2-74

16. Troubleshooting 2-75
16.1 Phenomena that are not failures 2-75
16.2 When battery is discharged 2-75
16.3 Troubleshooting 2-80

MidWestTech | Komatsu BR350JG-1 Mobile Crusher Operation & Maintenance Manual | Pu... Order the manual at mid-west-tech.com >

MAINTENANCE

17. Guides to maintenance 3- 2

18. Outlines of service 3- 5
18.1 Outline of oil, fuel, coolant 3- 5
18.2 Outline of electric system 3- 8
18.3 Outline of hydraulic system 3- 8
18.4 Air bleeding from hydraulic circuit 3- 9

19. Oil filler and oil level gauge 3-12
19.1 Locations of oil filler and oil level gauge 3-12

20. Wear parts list 3-13
20.1 Wear parts related to the body 3-13
20.2 Wear parts related to the jaw crusher 3-14
20.3 Wear parts related to the primary belt conveyor 3-16

21. Use of fuel, coolant and lubricants according to ambient temperature 3-18

22. Standard tightening torques for bolts and nuts 3-22
22.1 Introduction of necessary tools 3-22
22.2 Tools attached to jaw crusher 3-23
22.3 Torque list 3-25

23. Periodic replacement of safety critical parts 3-26

24. Maintenance schedule chart 3-29
24.1 Maintenance schedule chart 3-29

25. Service procedure 3-31
25.1 Initial 250 hours service 3-31
25.2 When required 3-32
25.3 Check before starting 3-60
25.4 Every 100 hours service 3-68
25.5 Every 250 hours service 3-70
25.6 Every 500 hours service 3-75
25.7 Every 1000 hours service 3-80
25.8 Every 2000 hours service 3-82
25.9 Every 4000 hours service 3-84

SPECIFICATIONS

26. Specifications 4- 2

MidWestTech | Komatsu BR350JG-1 Mobile Crusher Operation & Maintenance Manual | Pu... Order the manual at mid-west-tech.com >

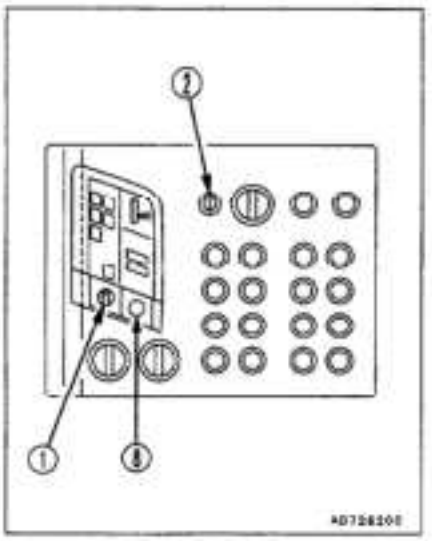
12.1.4 OPERATION AND CHECK BEFORE STARTING ENGINE

⚠ WARNING

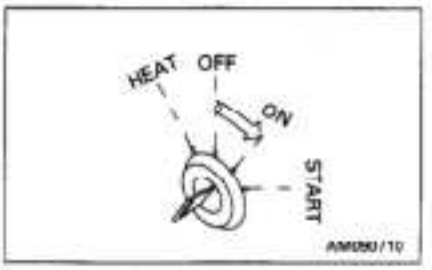
If someone touches the travel lever carelessly, the machine may start abruptly.
When leaving the machine, be sure to set the TRAVEL/WORK selector switch to the "TRAVEL" position.

1. Check that TRAVEL/WORK selector switch ① is at the "TRAVEL" position.

2. Check that the emergency stop switches on the operation panel and on both sides of the machine body are reset.

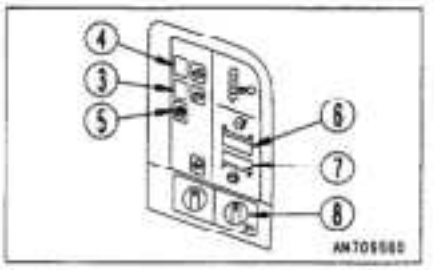


3. Insert the key in starting switch ② and turn it to the ON position, then perform the following checks.



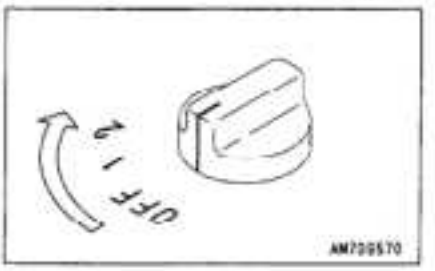
1) The rotary lamp lights up for about 1 second and the following monitors and meters light up for about 3 seconds.
- Charging level monitor ③
- Engine oil pressure monitor ④
- Travel lock monitor ⑤
- Engine water temperature gauge ⑥
- Fuel gauge ⑦

If the rotary lamp or any monitor does not light up, the monitor bulb or its wire may be broken. In this case, ask your Komatsu distributor for repair.



After about 3 seconds, only the following monitors stay lit up, and the others go off.
- Engine water temperature gauge ⑥
- Fuel gauge ⑦
- Charging level monitor ③

The charging level monitor goes off, however, after the engine starts.

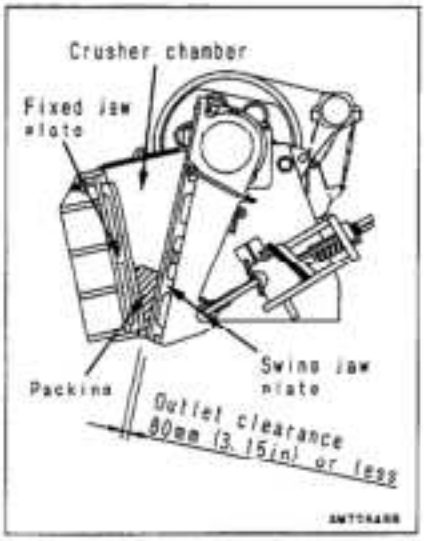


2) Turn lamp switch ⑧ to see if the head lamp and working lamp come on. If they do not come on, their bulbs or wires may be broken. In this case, ask your Komatsu distributor for repair.

MidWestTech | Komatsu BR350JG-1 Mobile Crusher Operation & Maintenance Manual | Pu... Order the manual at mid-west-tech.com >

12.17.3 CRUSHING ASPHALT CONCRETE DEBRIS

The mobile crusher can crush asphalt concrete debris produced in a road construction site.

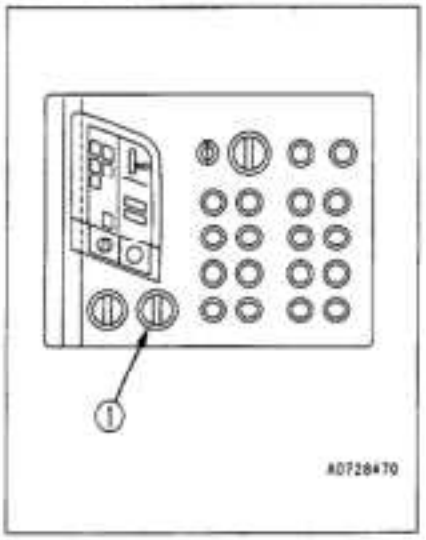


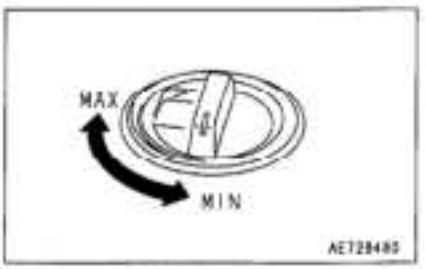
NOTICE

Since asphalt concrete debris is highly viscous, observe the following.

If the outlet clearance is reduced to below 80 mm (3.15 in) (O.S.S), the outlet of the crusher chamber of the jaw crusher is packed easily. Accordingly, set the outlet clearance of the jaw crusher to 80 – 120 mm (3.15 – 4.72 in) (O.S.S).

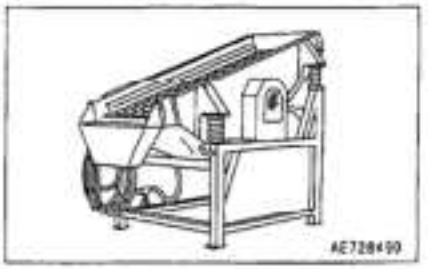
If the crushing effect is lowered by the high viscosity, lower the rotating speed of the jaw crusher with crusher speed dial ①. By lowering the crushing speed, softening of asphalt caused by frictional heat can be prevented and the crushing efficiency is kept high.





12.17.4 PRODUCTION OF PRODUCTS UNDER DESIRED SIZE

Since the jaw crusher performs unconfined compressive crushing, natural rocks may be crushed flatly because of their grains.



When producing products of sizes under 40, 30, etc., install the optional sieve 900 mm (35.5 in) wide to screen them.

NOTICE

When producing products of sizes under 40, set the outlet clearance of the jaw crusher a little wider than the specification (e.g. 60 – 80 mm (2.36 – 3.15 in) (O.S.S)) and adjust the size of the crushed stones with the sieve 900 mm (35.5 in) wide for longer life of the machine and higher productivity.

MidWestTech | Komatsu BR350JG-1 Mobile Crusher Operation & Maintenance Manual | Pu... Order the manual at mid-west-tech.com >

25.6 EVERY 500 HOURS SERVICE

⚠ WARNING

Be sure to attach a warning tag to the control panel.

Maintenance for every 100 and 250 hours service should be carried out at the same time.

25.6.1 REPLACEMENT OF OIL IN ENGINE OIL PAN AND ENGINE OIL FILTER CARTRIDGE

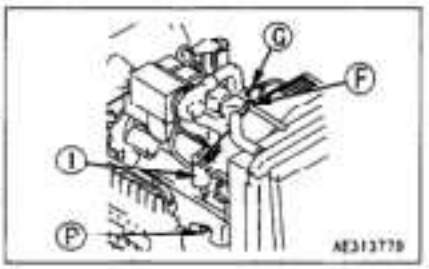
⚠ WARNING

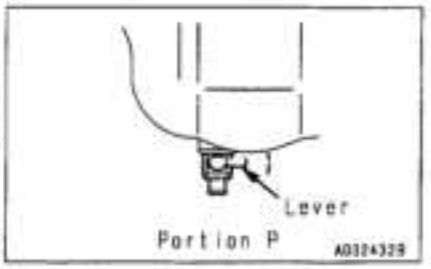
All parts are hot just after the engine is stopped. In this case, do not replace the oil immediately. Wait until the oil is cooled.

NOTICE

- **If the engine oil is cold, warm it (approximately 20°C – 40°C) before replacing it.**
- **Replace the engine oil and engine oil filter every 6 months, even if the machine is not operated for 250 hours.**
- **Never start the engine before supplying oil. If it is started, it will be seized.**
- **Prepare a container of at least 24 ℓ (6.34 US gal, 5.28 UK gal) to receive drained oil.**
- **Refill capacity of oil in oil pan: 24 ℓ**
- **Prepare the filter wrench.**

1. Place a drained oil receiving container just under drain cock Ⓟ on the bottom of the machine body.
2. Slowly loosen drain cock Ⓟ to drained oil, taking care not to pour the oil over yourself.
3. Check the drained oil. If it contains much metal powder or foreign matter, notify your Komatsu distributor.
4. Tighten drain cock Ⓟ.
5. Open the engine hood and turn filter cartridge ① to the left with the filter wrench from above the engine. Much oil flows out just after the engine is stopped. Accordingly, wait for about 10 minutes.
6. Clean the filter stand. Apply clean engine oil (or apply grease thinly) to the packing and threads of the new filter cartridge, then install the latter.





REMARK

Check that the used packing is not sticking to the filter stand. If it is sticking. oil will leak.

7. Screw in the filter cartridge until its packing touches the seal of the filter stand, then tighten further at least 1/2 turn.

MidWestTech | Komatsu BR350JG-1 Mobile Crusher Operation & Maintenance Manual | Pu... Order the manual at mid-west-tech.com >