# Operator's Manual

# TB120

## diesel – gasoline – LPG



Snorkel

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Omni/Quip Snorkel INTERNATIONAL

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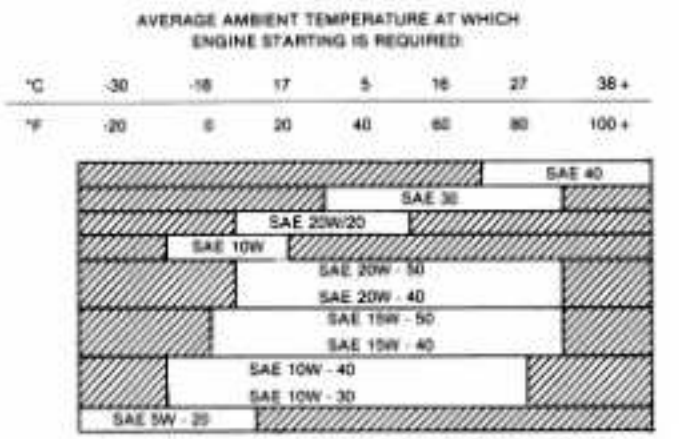
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## ■ ENGINE DATA

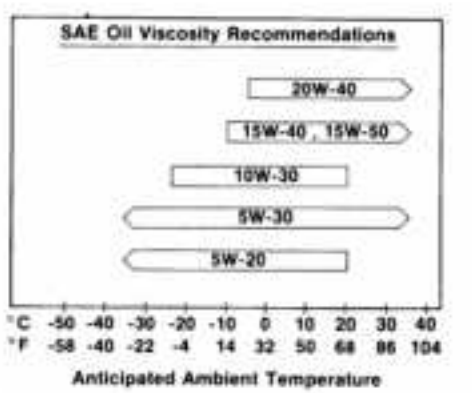
| ENGINE MAKE | CONTINENTAL | CONTINENTAL | CUMMINS |
|---|---|---|---|
| MODEL | TM27 | | 4B3.9 |
| FUEL | gasoline | LPG | diesel |
| FUEL GRADE | unleaded<br>85 octane<br>(motor method) | HD5<br>Gas Processors Association Standard 2140<br>Category: special duty propane | ASTM No. 2 D<br>Cetane # > 40<br>(For operating temp. below 32°F / 0°C use "winterized" No. 2 D.) |
| COOLANT | 50% water + 50% ethylene glycol | | |
| OPERATING TEMPERATURE | 180°F - 202°F<br>(81°C - 94°C) | | 141°F - 211°F<br>(60°C - 100°C) |
| OIL SUMP CAPACITY | 6 qt USA<br>(5.7 liters) | | 10 qt USA<br>(9.5 liters) |
| OIL FILTER CAPACITY | 1 qt USA<br>(0.95 liters) | | |
| OIL GRADE | API: SE, SF, SE/CD, SF/CD | | API: CE/SF, CD/SF |
| OIL WEIGHT | see chart below | | see chart below |
| RUNNING TIME | One full tank of gasoline or diesel will last an entire eight hour shift, under normal working conditions. It normally takes between one and two tanks of LPG per eight hour shift. | | |

## ■ ENGINE OIL CHARTS

CONTINENTAL ENGINE




CUMMINS ENGINE






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***IMPORTANT*** **(ground-control box operation):** You must hold the **GROUND OPERATION** switch (6) up when you use any of the platform-moving switches (1 through 5) to move the platform. This is a safety feature to prevent the platform from moving if a single platform-moving switch is accidentally pushed.

***IMPORTANT*** **(platform-control box operation):** You must be stepping on the foot switch (7) when you use any of the platform-moving switches (1 through 5) to move the platform. Also, you must be stepping on the foot switch to use either the **LIFT/SWING** controller or the **DRIVE/STEER** controller. The foot switch is a safety feature to prevent the platform from moving if a single platform-moving switch or controller is accidentally pushed.

FOOT SWITCH




GROUND-CONTROL BOX




PLATFORM-CONTROL BOX






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# 10. DAILY INSPECTION & MAINTENANCE

At the start of each work day (or 8 hour shift) a TB 120 qualified operator must perform the DAILY INSPECTION AND MAINTENANCE listed in the table below.

The purpose of the daily inspection and maintenance is to keep the TB 120 in proper working condition and to detect signs of malfunction at the earliest possible time.

**⚠DANGER**

**Do not operate a TB 120 that is known to be damaged or malfunctioning. Defective parts or equipment malfunctions jeopardize the safety of the operator and other personnel, and can cause damage to the machine.**

## DAILY INSPECTION AND MAINTENANCE TABLE

(Set the **MASTER KEY SWITCH** to OFF before you begin this inspection)

| ITEM | SERVICE REQUIRED |
|---|---|
| 1. Engine fuel level | Check fuel gauge (full) |
| 2. Fuel tank cap | Visually inspect (installation) |
| 3. Engine oil | Check oil level (between dipstick lines) |
| 4. Fuel leaks | Visually inspect (hoses, connections, etc.) |
| 5. Engine coolant | Check fluid level and radiator hoses |
| 6. Wiring harnesses | Visually inspect (installation, condition) |
| 7. Battery terminals | Visually inspect (no corrosion) |
| 8. Battery fluid level | Check fluid level (in contact with filler neck) |
| 9. Hydraulic oil | Check fluid level (between lines on gauge) |
| 10. Hydraulic oil leaks | Visually inspect (hoses, tubes) |
| 11. Tires | Visually inspect (condition) |
| 12. Bolts and fasteners | Visually inspect (looseness) |
| 13. Structural damage & welds | Visually inspect (weld cracks, dents) |
| 14. Guardrails | Visually check condition |
| 15. Platform gravity gate | Visually inspect (operation) |
| 16. Self-closing gate | Actuate and visually check condition |
| 17. Lanyard anchor points | Visually check condition |
| 18. Axle/boom interlock | Check operation |
| 19. Emergency power motor/pump | Check operation (causes correct motion) |
| 20. Air filter | Check condition (gauge) |
| 21. Charging system | Visually inspect (gauge) |
| 22. Ground-control box switches and alarms | Actuate and visually inspect for operation |
| 23. Level sensor | Actuate and listen for alarm |
| 24. Platform-control box switches and alarms | Actuate and visually inspect for operation |
| 25. GFCI (Ground Fault Circuit Interrupt) | Actuate and visually check for operation |
| 26. Platform work lights | Turn them on to see that they work |
| 27. Flashing lights | Turn them on to see that they work |
| 28. Driving lights | Turn them on to see that they work |
| 29. Slide pads | Visually inspect (boom wear marks) |
| 30. Whiffles and wire ropes | Visually inspect (even tension, condition) |
| 31. Envelope management system | Check operation |
| 32. Placards and decals | Visually inspect (installation, condition) |



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**DANGER**

Death or serious injury will result from tip over if Envelope Management System (EMS) is tampered with or improperly maintained.

1. Only trained qualified service personnel should work on EMS.
2. The EMS must be re-calibrated by trained qualified service personnel when any of the EMS components are replaced or adjusted. These components include joysticks, boom angle sensors, boom length sensors and MotionPac Electronic Control Units.
3. MotionPac Electronic Control Units must only be replaced with same model units. The model number of Snorkelift listed on the Electronic Control Unit name plates must match the model number of this Snorkelift unit.
4. Turn battery disconnect switch off and disconnect the EMS harnesses from the MotionPac Electronic Control Units before welding anyplace on this unit.

**DANGER**

A "RUNAWAY" SNORKELIFT CAN CAUSE **DEATH** OR SERIOUS INJURY. CHECK WITH TOW VEHICLE MANUFACTURER OR MANUFACTURER'S LITERATURE TO SEE THAT TOW VEHICLE CAN SAFELY TOW AND STOP TOTAL WEIGHT OF SNORKELIFT ON THE STEEPEST GRADE YOU WILL ENCOUNTER. REMEMBER, SNORKELIFT DOES NOT HAVE BRAKES WHEN IT IS TOWED.

BE CERTAIN TOW VEHICLE BRAKES ARE SET AND TOW BAR IS CONNECTED TO BOTH TOW VEHICLE AND SNORKELIFT BEFORE YOU TURN SNORKELIFT DISCONNECT-PLATES OVER.

AT THE END OF THE TOW, BEFORE YOU DISCONNECT THE SNORKELIFT FROM THE TOWING VEHICLE, TURN THE DISCONNECT-PLATES BACK OVER SO THE NIPPLES ARE OUT. THAT WILL PREVENT THE MACHINE FROM ROLLING WHEN YOU DISCONNECT IT FROM THE TOW VEHICLE.

DO NOT EXCEED 10 MPH (16 KM/HR) WHEN TOWING. AVOID SHARP TURNS.

**DANGER**

YOU MUST NOT OPERATE THIS DEVICE UNLESS

1. YOU HAVE BEEN TRAINED IN THE SAFE OPERATION OF THIS DEVICE AND
2. YOU KNOW AND FOLLOW THE SAFETY AND OPERATING RECOMMENDATIONS CONTAINED IN THE MANUFACTURER'S MANUALS, YOUR EMPLOYER'S WORK RULES, AND APPLICABLE GOVERNMENTAL REGULATIONS.

AN UNTRAINED OPERATOR EXPOSES HIMSELF AND OTHERS TO DEATH OR SERIOUS INJURY




(LPG option only)

**CAUTION**

THIS MACHINE IS EQUIPPED WITH

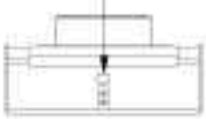
**LIQUID WITHDRAWAL**

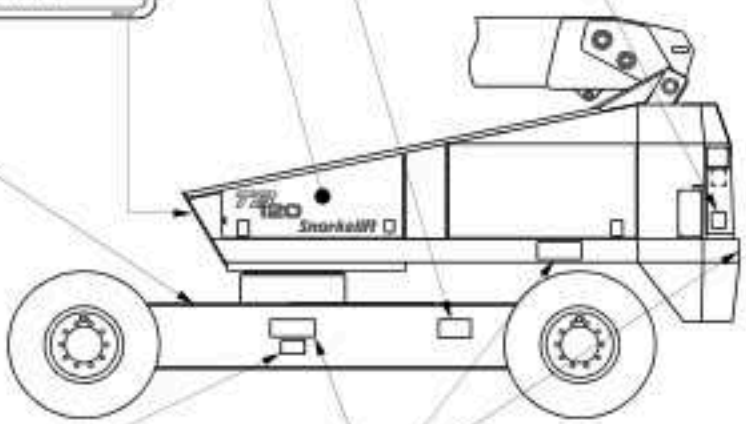
L.P. GAS SYSTEM

- LIQUID OR VAPOR WITHDRAWAL L.P.-GAS CYLINDER MAY BE USED.
- ALWAYS KEEP L.P.-GAS CYLINDER SHUT-OFF VALVE CLOSED WHEN NOT USING L.P.-GAS SYSTEM.

**DANGER**

DO NOT ALTER OR DISABLE LIMIT SWITCHES, SAFETY SWITCHES, OR INTERLOCKS.






**DANGER**

- THIS UNIT IS EQUIPPED WITH FOAM FILLED TIRES. WHEEL WEIGHT IS CRITICAL FOR UNIT STABILITY.
- REPLACE WITH FACTORY APPROVED FOAM FILLED TIRES ONLY.
- DO NOT ATTEMPT TO INFLATE.

**DANGER**

**ELECTROCUTION HAZARD**

**KEEP CLEAR**

DEATH OR SERIOUS INJURY CAN RESULT FROM CONTACT WITH THIS EQUIPMENT OR VEHICLE IF IT SHOULD BE ELECTRICALLY CHARGED.



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