snorkel

MB26J
MB20J



CE

PARTS & SERVICE MANUAL

Serial Number 001200 and after

Part Number 511110-200
January 2013

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Item	Part No.	Name	Qty	Uom
505607-002	505607-000	MB20 ANSI DECAL KIT		EA
1	511099-000	Decal, Snorkel 150mm High	2	EA
2	512260-000	DECAL, 'Snorkel MB20J' cover	2	EA
3	068635-001	DECAL, HARNESS HARD POINT	1	EA
4	058761-000	DECAL - S.W.L. LARGE ANSI	1	EA
5	510280-100	EMERGENCY DOWN DECAL	1	EA
6	057429-000	DECAL, BATTERIES	2	EA
7	058539-002	DECAL- SAFETY STEPS	1	EA
8	501573-000	MB LOWER CONTROL FR BOX	1	EA
9	058537-000	DECAL-PINCH POINT	1	EA
10	501643-001	DECAL,SYSTEM OPERATING	1	EA
11	058181-003	DECAL - 3 POINTS	1	EA
12	066552-000	LABEL. WARNING EXPL. GAS	2	EA
13	010076-901	DECAL, DOCUMENT BOX	1	EA
14	508503-000	Decal, Caution Batfill Battery	1	EA
15	066556-001	DECAL, CRUSHING HAZARD	5	EA
16	508526-000	DECAL - EMERCENCY RE	1	EA
17	058531-000	DECAL - TIE DOWN/LIFT POINT 4	4	EA
18	058538-001	DECAL- SAFETY HAZARDS	1	EA
19	060197-001	DECAL, HYDRAULIC OIL	1	EA
20	058530-000	DECAL- ANSI A92.5 199	1	EA
21	300699	DECAL, OPERATORS CHECKLIST	1	EA
22	057434-001	DECAL - GENUINE REPLACEMENTS	1	EA
23	057424-001	DECAL - CRUSH HAZARD	2	EA
24	066555-000	DECAL, RELIEF VALVE	1	EA
25	058534-000	DECAL, BATTERIES	2	EA

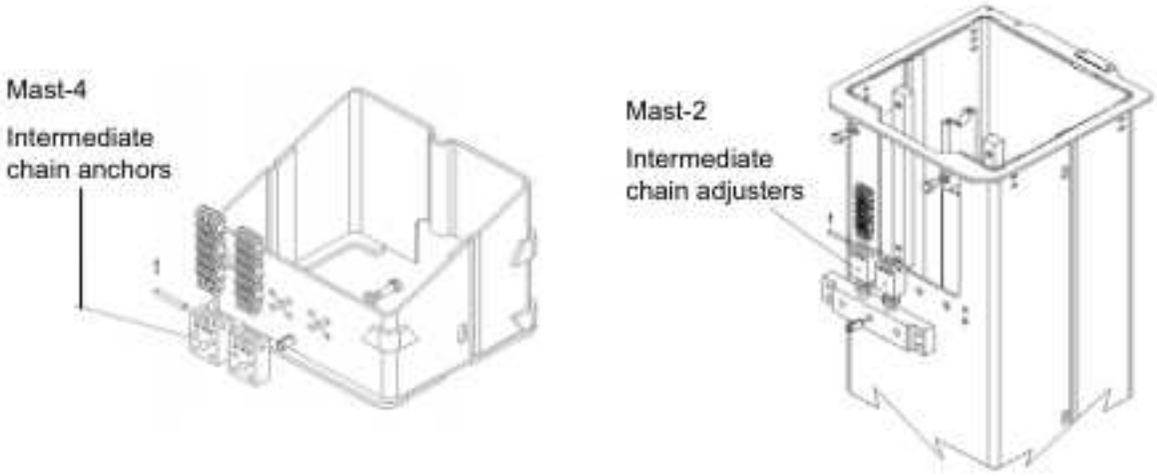
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3. If the differential dimension is greater than 6mm. then it is neccessary to tighten the loose adjuster.

4. Return the masts to the fully lowered position and check the overall height of the mast assembly from the ground. Check that the nominal dimension is 1995 mm.

5. If this dimension has been exceeded during chain balancing, then it is likely that one of the chain pairs the chains has been overtightened, causing the masts to rise above the normal position. If this is the case then return to point 3. and balance the chains by slackening off the tightest adjuster.

Figure 3-21: Intermediate Chain Ends



LOWER CHAIN ADJUSTMENT

The lower chain adjustment and inspection requires special consideration. Excessive slackness of the lower chain causes slamming of the chain during acceleration and deceleration of the machine during travel. To adjust the chain tension it is necessary to fully lower the mast assembly. Remove the chassis covers and locate the inspection cutout at the base of the fixed mast.

Figure 3-22: Lower Chain Ends



Check that the anchor pins are secured by means of the split pin as shown in Figure 2-22 Using a 22mm spanner adjust the nut at the base of the main chain adjusting end until the chain slackness ie reduced to a minimum. There is no advantage to be gained in continued tightening of the chain. This will lead to raising of Mast-3 and loss of stowed height clearance. Balance the chain tensions by inspecting each chain from the top mast inspection hatch. Tighten the locknuts at the base of each chain tensioner.

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Special Tools

Following is a list of tools which may be required to perform certain maintenance procedures on the MB20J and MB26J work platforms.

- Flow Meter with Pressure Gauge (**Snorkel** P/N 067040-000)
- 0-69 bar (0-1000 psi) Hydraulic Pressure Gauge with Adapter Fittings (**Snorkel** P/N 014124-010)
- 0-207 bar (0-3000 psi) Hydraulic Pressure Gauge with Adapter Fittings (**Snorkel** P/N 014124-030)
- Adapter Fitting (**Snorkel** P/N 063965-002)
- Inclinometer (**Snorkel** P/N 010119-000)
- Crimping Tool (**Snorkel** P/N 028800-009)
- Terminal Removal Tool (**Snorkel** P/N 028800-006)
- Calibrator EZcal (**Snorkel PN:** 504560-001)

Adjustment Procedures

Hydraulic settings must be checked whenever a component is repaired or replaced.

Remove counterbalance valves and "bench test" them if they are suspect.

Connect a pressure gauge of appropriate range to the test port located on the hydraulic manifold.

Correct pressure settings are listed in the hydraulic schematic.

Checking Pump Pressures

Remove hose from pump port and connect pressure gauge.

Diagnostics Using EZcal display

The EZcal Display can be switched into calibration mode to become an invaluable tool when troubleshooting on this machine.
Switch the machine on, press and hold Esc for 5 seconds until "Ezlift menu" is displayed then select diagnostics, the following menu's are available:

1. SYSTEM –
   - MODE : Platform or Ground Controls selected.
   - SUPPLY : Displays battery voltage, should be above 18v when the machine is not running.
   - VALVE SUPPLY : ON or OFF
   - MOTOR V : Supply voltage to motor (0v when motor not running.
   - MOTOR I : Supply current to motor (0A when motor not running
   - TEMPERATURE: Control temperature in °c, should be below 60.
   - TILT : Displays tilt angle of the machine in X and Y direction, both should be below 2°.
   - TILTED : YES or NO

The remaining submenu's in SYSTEM are not applicable to this machine.

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2.2 GENERAL DESCRIPTION

The MB20/26J are self propelled, fast acting aerial work platforms, designed to raise two operators with hand tools to a platform floor height of 6.00m and 7.76m respectively. The accessible height is approximately 2.00m above these figures.

The unit offers the ability to reach over obstacles but **must** be used on firm and level ground at all times.

DANGER

DO NOT use the lifting mechanism to raise or lower goods or persons except within the cage and subject to the specified weight limitations.

DANGER

DO NOT enter the platform from any structure, rack or other platform.

Figure 3: Work Platform



WARNING

DO NOT use the work platform without safety drop-bar in place and with the safety harness fitted.

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Never attempt to repair the mast, jib or platform components while the assembly is partially elevated. In the event of failure of the assembly to descend by normal means use the emergency lowering valves as described in the Operators Manual.

If this fails then support the structure by means of an approved overhead lifting equipment or an approved adjustable support jack prior to loosening or removing any parts.

⚠ DANGER ⚠

Failure to carry out this instruction could lead to **serious injury or death**.

⚠ WARNING ⚠

Where an abnormal situation is noted - for example damage to a part etc. - it is imperative that advice is sought from **Snorkel Techncal advisors** or from a suitably qualified person before continuing with maintenance.

TOOLS

The following special tools will assist in speedy repair and maintenance of the MB20N/26 machines:-

- Multi-meter capable of reading DC Volts, Ohms and Amps.
- 1/4" standard quick -connect hydraulic pressure gauge - Range (0 - 300 bar)
- Calibrator Pt. No. 504560-001 - A test and analysis instrument for the D.C. motor controller.

THREAD SIZE	LOCATION	TIGHTENING TORQUE	
		METRIC	IMPERIAL
M4		3Nm	2.2lbs-ft
M6		10Nm	7lbs-ft
M8		25Nm	18lbs-ft
M10	Pin Lock Plates	40Nm	30lbs-ft
M10	Jib Mount Structure	50Nm	37lbs-ft
M12		80Nm	59lbs-ft
5/8-11unc	Slew Bearing	220Nm	165lbs=ft

Table 1: Torque Settings

⚠ WARNING ⚠

RISK of SERIOUS INJURY.

Take particular care when handling batteries. Acid spills can cause severe burns or blindness.

DO NOT store batteries close to naked flames or close to steel fabrication areas.

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