

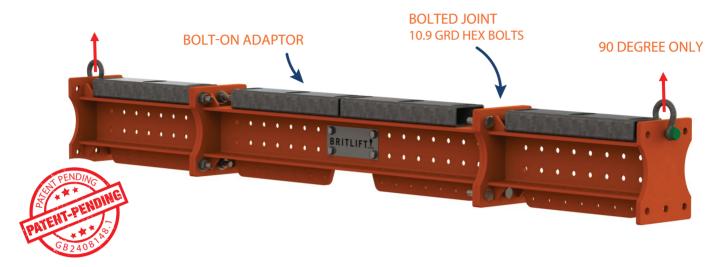
# **MULTILIFTER (ML180)**

UNDER BEAM INSTRUCTIONS FOR USE REV-B

THIS SET OF USER INSTRUCTIONS IS FOR THE BRITLIFT ML180 MULTILIFTER. WHEN USED AS AN UNDER BEAM, THIS ML180 IS RATED TO A MAXIMUM VERTICAL LOAD OF 16 TONNES (16000KG) AND HAS A MAXIMUM SPAN (OR LENGTH) OF 10 METERS (10000MM). THIS BEAM SHOULD BE LOADED VIA THE TOP SHACKLE BOLT-ON LUGS WHICH ARE DESIGNED TO SUIT A 17T SHACKLE (VAN BEEST OR CROSBY), OR THE CENTRAL TOP BOLT-HOLE WHICH IS DESIGNED TO SUIT AN 8.5T SHACKLE (VAN BEEST OR CROSBY).

TO USE THE SYSTEM AS AN UNDER BEAM, THE UNDER BEAM BOLT ON ATTACHMENTS WILL ALSO BE REQUIRED TO MAKE A LEVEL SURFACE AT THE TOP OF THE BEAM TO LAND THE LOAD ON. THE USER MUST VERIFY AND SPECIFY THE QUANTITY OF THESE ATTACHMENTS REQUIRED TO SAFELY LIFT THEIR LOAD.

THE MULTILIFTER MAY BE COMPRISED OF MULTIPLE SECTIONS AND AS THE SPAN INCREASES, THE CAPACITY DECREASES, PLEASE SEE TABLE 2 BELOW.



## **WLL INFORMATION**

#### **CHART 1: LOAD INFORMATION 1-3 ONLY**

| TOTAL SPAN<br>(M) | SAFE WORKING LOAD<br>(SWL) |
|-------------------|----------------------------|
| 1-3 meters        | 16 Tonnes                  |
| 4 meters          | 13 Tonnes                  |
| 5 meters          | 10 Tonnes                  |
| 6 meters          | 7 Tonnes                   |
| 7 meters          | 6 Tonnes                   |
| 8 meters          | 4 Tonnes                   |
| 9 meters          | 3 Tonnes                   |
| 10 meters         | 2 Tonnes                   |



#### **CHART 2: COMPONENT INFORMATION**

| DESCRIPTION     | SELF WEIGHT |
|-----------------|-------------|
| 1m Beam Section | 180kg       |
| 2m Beam Section | 250kg       |
| 4m Beam Section | 425kg       |
| UB ADAPTOR      | 31kg        |

#### **CHART 3: SHACKLE INFORMATION**

| LOCATION           | SHACKLE SPEC       |
|--------------------|--------------------|
| Top Shackle        | 8.5T Standard Bow  |
| (Flange/Bolt Hole) | Dims based upon VB |
| Ø33mm hole         | Green Pin G-4163   |
| Top Shackle        | 17T Standard Bow   |
| (Bolt-on Lug)      | Dims based upon VB |
| Ø45mm hole         | Green Pin G-4163   |





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#### **SAFETY REOUIREMENTS**

- DUE TO THE FLEXIBILITY OF THE MULTILIFTER SYSTEM. ANY LIFTS USING THE SYSTEM MUST HAVE BEEN PLANNED. BY A COMPETENT AP AND HAVE A LIFT SPECIFIC METHOD STATEMENT. DO NOT USE THE SYSTEM WITH A BASIC GENERIC LIFT PLAN.
- CONSIDER THE COG (CENTRE OF GRAVITY) OF THE LIFT, AND BE SURE THAT NO INDIVIDUAL COMPONENTS ARE OVERLOADED DUE TO OFFSET LOADING.
- CONSIDER THE COG OF THE ASSEMBLED SYSTEM, IF YOU HAVE ASSEMBLED THE SYSTEM TO SUIT AN OFFSET COG LIFT OR YOU HAVE AN UNSYMMETRICAL ASSEMBLY THEN THE SYSTEM MAY TILT SIGNIFICANTLY WHEN UNLOADED.
- USE A TAPE TO CONFIRM LOCATIONS OF LIFTING POINTS ARE IN ACCORDANCE WITH THE LIFT PLAN.

TERMINOLOGY: "LIFTING CENTRES" REFERS TO THE DISTANCE BETWEEN THE LUGS TAKEN FROM THEIR CENTRE POINTS (4M CENTRES = 2M FROM EACH SIDE OF THE CENTRE OF THE BEAM).

#### CRITICAL INFORMATION

- 1. THIS IS AN UNDER BEAM WHICH MUST BE USED WITH THE ATTACHMENTS PROVIDED, AND DETAILED WITHIN FURTHER INFORMATION (ABOVE) PAGE ONE: CHARTS 1, 2, & 3.
- 2. ENSURE EACH COMPONENT YOU ARE USING IS FROM THE CORRECT ML SERIES AND CHECK THAT ALL RELEVANT CERTIFICATION IS PRESENT.
- 3. ENSURE THAT THE MATING FACES OF THE COMPONENTS ARE FREE FROM DEBRIS.
- 4. BOLT THE SYSTEM TOGETHER USING THE FASTENERS AND TIGHTENING TORQUE SPECIFIED.
- 5. BOLT THE ATTACHMENTS USING THE FASTENERS AND TIGHTENING TORQUE SPECIFIED.
- 6. CHECK AND ENSURE THAT THERE IS A BOLT IN EVERY HOLE.
- 7. CHECK AND ENSURE THAT THE BOLTS CONNECTING THE FLANGES ARE 10.9 GRADE SPECIFICALLY.
- 8. ALL CHARTS ON PAGE ONE MUST BE REFERRED TO.

- 9. ENSURE UNDER BEAM ATTACHMENTS ARE SECURE AND CORRECTLY BOLTED TO THE TOP OF THE UNDER BEAM.
- 10, ENSURE THE UNDER BEAM ATTACHMENTS WILL NOT DAMAGE THE LOAD AND THAT THE GAPS BETWEEN BEARING SURFACES ON THE UNDER BEAM (THE TOP OF THE BEAM) WILL NOT CAUSE THE LOAD TO BECOME UNSTABLÉ OR DAMAGED.
- 11. THE WLL OF ANY COMPONENT MUST NOT BE EXCEEDED.
- 12. SHACKLE HOLE DIAMETERS ARE PROVIDED WITHIN SHACKLE CHARTS.
- 13. ANY PERSONNEL USING THIS PRODUCT MUST BE A TRAINED AND COMPETENT RIGGER OR SLINGER/ SIGNALLER.
- 14. THE ONGOING USE OF THIS PRODUCT MUST BE IN ACCORDANCE WITH THE REQUIREMENTS IN LOLER (LIFTING OPERATIONS AND LIFTING EQUIPMENT **REGULATIONS 1998).**
- 15. CHECK THAT NO RIGGING EQUIPMENT CLASHES WITH THE BEAM. THE BEAM MUST ONLY BE LOADED THROUGH THE SHACKLE PIN HOLES AT EACH END.

#### **KEY CONSIDERATIONS FOR USE**

- ALWAYS FOLLOW THE LIFT PLAN CREATED BY THE APPOINTED PERSON WHEN USING THIS EQUIPMENT.
- BE VERY CAREFUL WITH THE LOAD COG LOCATION. USER MUST ENSURE LOAD IS SECURED AND UNDER BEAM WILL NOT SLIP OR DAMAGE THE LOAD.
- CONSULT WITH YOUR AP, SUPPLIER, OR BRITLIFT DIRECTLY IF YOU ARE UNSURE.
  DO NOT RIG TOP SLINGS MORE THAN 6 DEGREES FROM VERTICAL.

## ASSEMBLY GUIDE

- CONSULT THE LIFT PLAN AND ENSURE THAT YOU ARE **USING THE CORRECT BEAM FOR YOUR LIFT** REQUIREMENTS.
- 2. ENSURE EACH COMPONENT YOU ARE USING IS FROM THE CORRECT SERIES AND CHECK THAT ALL RELEVANT CERTIFICATION IS PRESENT.
- 3. ENSURE THAT THE MATING FACES OF THE COMPONENTS ARE FREE FROM DEBRIS.
- 4. BOLT THE SYSTEM TOGETHER USING THE FASTENERS AND TIGHTENING TORQUE SPECIFIED.
- 5. CHECK AND ENSURE THAT THERE IS A BOLT IN EVERY HOLE REGARDING THE FLANGES AND CONNECTION POINTS IN USE.
- 6. CHECK AND ENSURE THAT THE BOLTS CONNECTING THE FLANGES ARE 10.9 GRADE SPECIFICALLY.

- PLACE YOUR TOP SLING WITHIN THE TOP SHACKLE AND THEN LOWER THE SHACKLE INTO PLACE OVER THE LUGS. ONCE ALL THE HOLES ARE ALIGNED, PIN IN PLACE USING THE TOP SHACKLE PIN.
- ATTACH THE OTHER END OF THE TOP SLINGS TO YOUR LOAD SPREADING DEVICE.
- A LOAD SPREADING DEVICE WILL BE REQUIRED ABOVE THE UNDER BEAMS IN MOST CASES TO KEEP THE SLINGS THAT CONNECT TO THE UNDER BEAM VERTICAL.
- 10. BEFORE MOVING THE BEAM OUT OF REACH, THE ASSEMBLY MUST BE THOROUGHLY INSPECTED BY A COMPETENT PERSON.
- 11. CONNECT THE BOTTOM SLINGS TO THE LOAD AND CHECK TO ENSURE THAT THE RIGGING ARRANGEMENT IS IN ACCORDANCE WITH THE LIFT PLAN.





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PLANNED.

## **FURTHER INFORMATION**

- THE TOP LUGS ON THIS SYSTEM ARE BOLT ON. WHEN BEING USED THEY MUST BE BOLTED ON SECURELY. THE LUGS SUIT AN M24x70 BOLT AND MUST BE TORQUED TO A MINIMUM OF 400NM.
- IF USING MULTIPLE SECTIONS, THE BEAMS MAY BE CONNECTED TOGETHER USING THE BOLTED FLANGES. EACH FLANGE CONNECTION IS DESIGNED TO USE 6 OFF GRADE 10.9 M30x90 BOLTS AS SUPPLIED BY BRITLIFT. THESE **BOLTS MUST BE TORQUED TO A MINIMUM OF 500NM.**
- IT IS THE RESPONSIBILITY OF THE APPOINTED PERSON PLANNING THE LIFT TO ENSURE THAT THE CORRECT NUMBER OF UNDER BEAM ATTACHMENTS ARE BEING USED AND THAT THE LIFT WILL BE STABLE AND WILL NOT DAMAGE THE LOAD.
- THIS SYSTEM HAS MULTIPLE ATTACHMENTS WHICH ENABLE THE BEAMS TO BE USED FOR MANY DIFFERENT SITUATIONS AND LIFTING SCENARIOS. SEE BELOW FOR AN EXAMPLE OF THE DIFFERENT USES OF THE SYSTEM.

#### EACH POINT LOAD MUST INTERFACE VIA THE UNDER BEAM ADAPTORS



YOU MAY USE AS MANY UNDER BEAM ADAPTORS AS CAN FIT ONTO THE BEAM.

#### TOP LUGS: CAN BE USED TO BRING THE LIFTING CENTRES INWARDS



#### ENSURE CONTACT BETWEEN THE LOAD & THE UNDER BEAM IS SAFE & SUITABLE





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