



Concrete Lifting Clutch

Load Groups
1.3 through to 32 tonne

Note: Operator must read and fully understand the operating instructions before using this product.

Products supplied comply with the essential health & safety requirements of the Machinery Directive 2006/42/EC, the Supply of Machinery (Safety) Regulations 2008 and the Health & Safety at Work etc Act 1974 section 6.

George Taylor & Company maintain a policy of progressive development of products and reserve the right to alter, without notice, the specifications shown within this manual.

DESCRIPTION

Cobra grade 80 concrete lifting clutch is designed to engage to the head of a lifting anchor system precast into concrete elements. It consists of two components;

- Spherical head anchor.
- Lifting link.

The design allows a precast panel to be lifted, turned, tilted and rotated under load. The design ensures that only matching components fit together.

The head anchor and lifting link all come from the same load group. Take note of the load group marked on the link.

PERIODIC INSPECTION

Before each use of the device and regularly, the operator shall carry out a thorough inspection in a clean, well-lit place to check the clutches condition and proper operation. Carefully check all elements, paying particular attention to any damage, excessive wear, corrosion, abrasion, cuts and malfunction.

Keep a record of all periodic inspections, which must be carried out by a skilled person. The maximum interval between inspections is one year, but frequency may vary according to legislation in force in the country in which the clutches are used. In the case of continuous or particularly heavy use, the frequency of inspections must be increased accordingly.

Any defects found should be corrected before use. It is important to determine the amount of wear. If wear is more than 5% take the clutch out of service. The lettering and identification must be visible. If the link is deformed or damaged, the device must be taken out of use and cannot be repaired.

WARNING

Damage, distortions, cracks and extensive corrosion can reduce the load-carrying capacity and lead to failure. This causes a hazard of injury or potentially death. Any affected parts must be taken out of service immediately.

In case of any doubts as to the condition and usage of this device. Do not put into service and consult GT.

SAFETY STANDARD

WARNING

These warnings indicate a potential hazardous situation, that if not avoided could result in death or serious injury. It may also be used to alert against unsafe practices.

Use only trained personnel. Using the clutch and lifting device by untrained personnel poses the risk of incorrect use or falling, which may cause injury or death. The lifting systems must be used only for lifting and moving precast concrete elements.

- All lifting anchors and devices must be operated manually.
- Do not use this device contrary to its intended use.
- This device shall not be used to lift or lower personnel.
- Do not lift or lower loads over an area occupied by people.
- Check the stability of the load attached on which it is hoisted to prevent accidental detachment of any element. Hook in all lifting systems separately, without using force.
- Never use a hammer or tools alike to attempt to force close the lifting clutch.

Operator should be a competent person.

DO NOT ALLOW PERSONS TO OPERATE OR ASSEMBLE THIS UNIT UNTIL THEY HAVE DEVELOPED A THOROUGH UNDERSTANDING OF SAFETY PRECAUTIONS AND HOW IT WORKS.

DO NOT CHANGE, REPAIR OR REPLACE ANY ELEMENTS OF THIS DEVICE.

GT holds no responsibility for the change of mechanical properties which are caused directly or indirectly from maintenance by a third party, without written permission from GT.

MAINTENANCE AND STORAGE

Ensure care is taken when using this device. During operation steps shall be taken to avoid mechanical, chemical and thermal damage. Do not use a damaged or malfunctioning device. Clean a dirty device with a damp cloth. Avoid using chemical agents to clean the device due to mechanical and material damage.

When the clutch is disengaged from the anchor, suitably store the device indoors, away from water and moisture.

If the clutch is left engaged with an anchor when not in use, always ensure it has been cleaned and inspected before resuming operation.

If the clutch shows signs of distortion, cracks, breaks, serious corrosion or any other damage, or on which the maximum permissible wear limit has been reached, it must be replaced.

ENVIRONMENTAL FACTORS

Cobra clutches must not be used in acid environments or immersed in acid or caustic solutions or vapours; they must therefore never be subject to pickling, hot dip galvanising processes or to any other galvanising process in general. Bear in mind that strong oxidising agents corrode the metal of the clutch.

The high tensile strength of the heat treated alloy material is susceptible to hydrogen embrittlement when exposed to acidic or caustic substances, atmospheres and environments. Don't use the items in offshore applications.

The possibility of using clutches in the presence of mineral acids depends on the type of acid, its concentration, the temperature and the duration of contact. In any case, any clutch contaminated by aggressive chemicals or their vapours must immediately be taken out of service, washed in cold water, dried and examined by a skilled person.

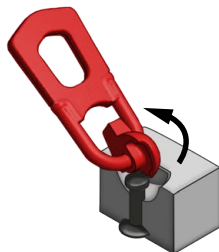
TRANSPORT

Device(s) shall be transported in suitable packaging protecting it from damage and getting wet.

Operating Instructions



1
The clutch is placed in the right position.



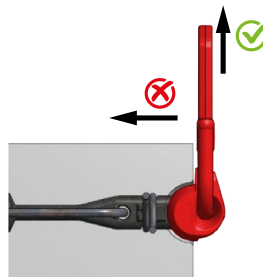
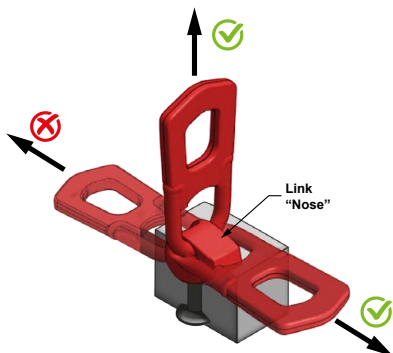
2
Rotate the link, until the opening corresponds with the anchor head.



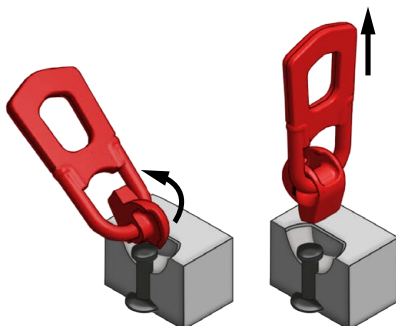
3
The link rotates to its locking position.



4
The nose of the link is pushed against the concrete element.



When tilting the concrete unit with the lifting clutch, the nose must face the same direction as the load (see above). Due to the counterweight of the nose, the link remains connected, even in an unloaded state. To release the Cobra clutch, the load hook is lowered and the link is turned up and out. The crane can only be withdrawn after the lifting system is completely detached from the recess and anchor.

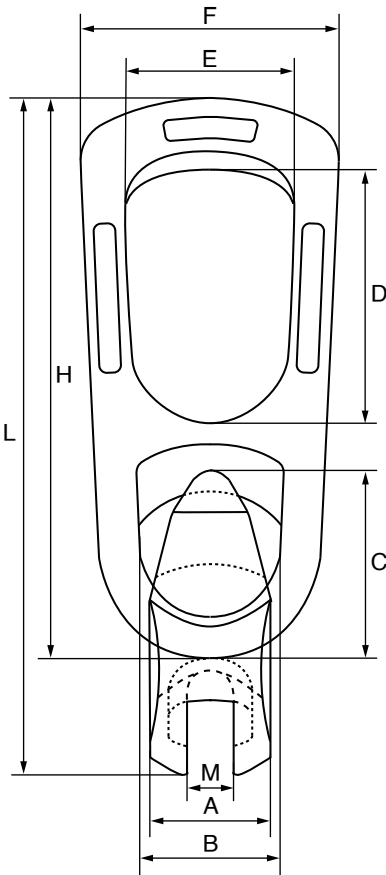


Release operation after lifting.



If the link remains in the position showed above, the lifting of the concrete unit is not allowed.

Take care to ensure the nose on the link does not raise up from sitting flush on the concrete element.



Product Code	W.L.L. t	A mm	B mm	C mm	D mm	E mm	F mm	H mm	M mm	L mm	Weight kgs
G80LC1.3	1.3	34	42	80.4	70.5	45	73	157	11.5	181	0.89
G80LC2.5	2.5	42	49	99	85	57	88	190	16	220	1.3
G80LC5	5	55	70	133	88	69	110	233	22	271	3.24
G80LC10	10	74	92	176	116	83	161	336.5	30	386	10
G80LC20	20	111	112	227	132	106	180	429	42	497	20.4
G80LC32	32	155	171	306	190	164	277	568	52	663	46.5

