



G&S Industries
Group of Companies

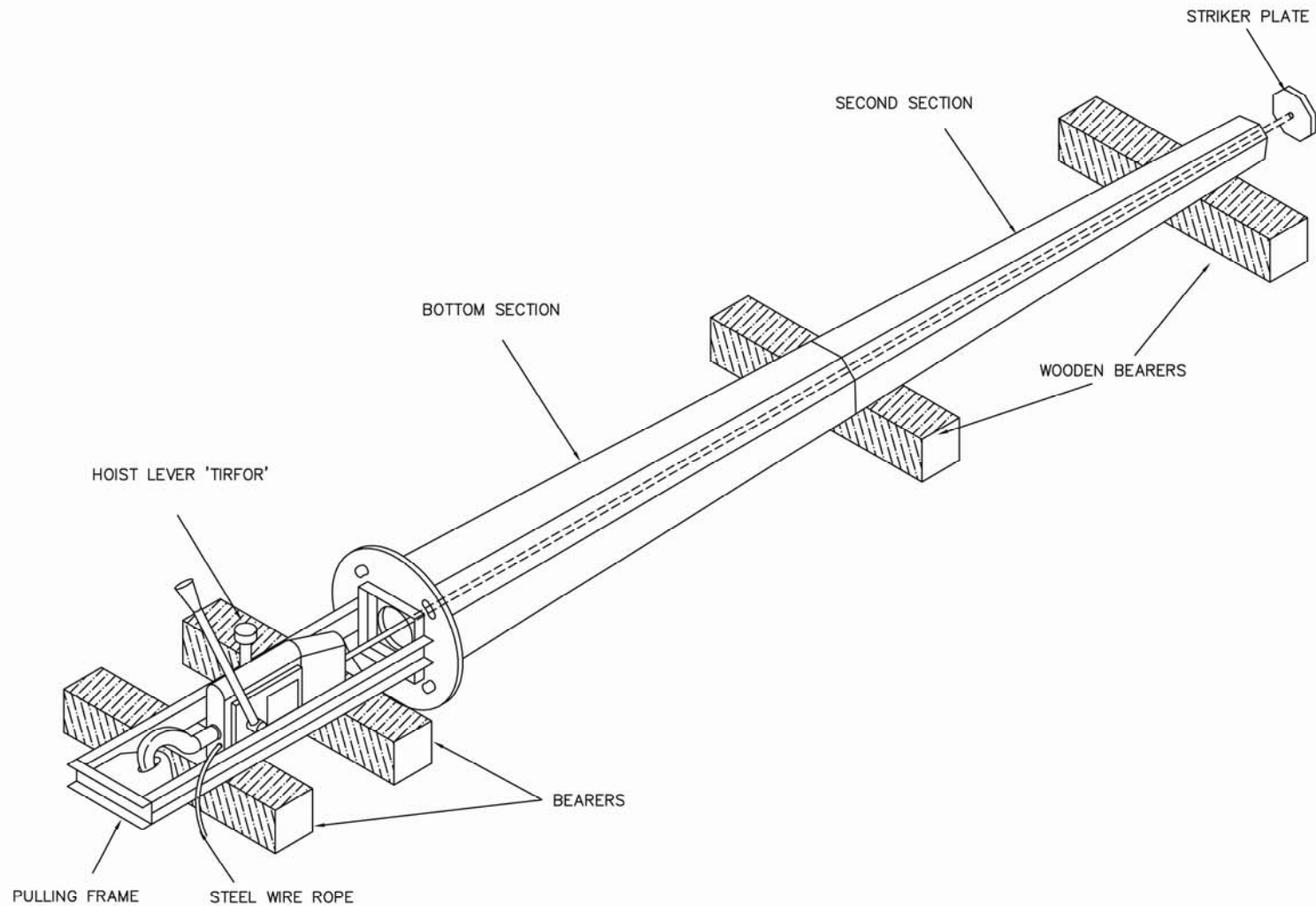
Onsite Column Assembly

Due to the overall length of the majority of our Mid Hinged and Fixed Tapered Octagonal Columns, when delivered to site, some of our columns will require some degree of assembly. Please note that this procedure is intended as a guide only, which is to be followed in conjunction with any currently existing site safe working / Worksafe regulations at the time of installation of the column.

The column sections are to be laid out onto wooden bearers or similar material, so that the column's underside is level horizontally with the ground line. Ensure that these wooden bearers or the like are compatible with the column's baseplate and headframe dimensions so that both will clear the ground when assembled. Also ensure that the wooden bearers or the like are spaced at even intervals so as to support each column section individually. Also ensure that they are not positioned under the slip joints so as not to impede the horizontal movement required to join the column sections together. There should be a minimum of 300mm clearance from the slip joint range detailed directly below.

The slip joints are the joints where the column sections meet with the female end of higher section sliding over the male end of the lower section. The minimum slip overlap required on these joints is greater than or equal to 1.5 x the outside diameter (across the flats) of the male end of the slip joint of the lower section. This 1.5 measurement is a minimum only and the sections should be joined together tightly to allow for manufacturers tolerances. It is recommended that this measurement be marked on the male end of the lower section prior to joining the sections. If in the event that the minimum slip is not achieved, the assembly procedure should cease and G&S should be contacted immediately. Erecting a column which has been joined with less than the minimum required slip could result in serious injury to persons or property.

Ensure that the column baseplate is wedged to prevent rotation of the column.



Sections are to be joined one at a time starting from the base sections working towards the top of the column. The female section being joined should be lifted to the correct level using a suitable sling at the section's centre of gravity, using a crane or other suitable lifting equipment and aligned with the male section of the joint. The sections must be perfectly aligned so as to ensure that jamming does not occur, disrupting the slip joint process and damage to the galvanizing and or painted coatings.

Initially, at each slip joint, the female end of the section is to be slid over the male end of the lower section as far as can be using hand force only. Once this is achieved, Tirfor or similar as shown in the diagram above is to be used to assemble the two sections. A steel cable to suit the Tirfor is to be fed down the column and fed through the Tirfor. A crossbar capable of withstanding the required force is to be fed through the eyelet of the steel cable at the top of the column. The Tirfor is to be operated and the sections slowly pulled together. If two Tirlfors are utilised, one on either side of the column, they must be operated in coordination to ensure that the telescoping of the sections proceed evenly about the column axis.

The Tirfor assembly process may be aided by striking the "striking plate" as shown in the diagram above, with a sledge hammer. The external surface of the slip joints can also be hammered using a wooden block and hammer to assist in achieving an adequate joint.

The Tirfor or similar is to be operated under supervision, ensuring both sections being joined are in line with each other to ensure adequate slip is achieved. The telescoping of the two sections should continue until no further movement can be achieved.

The above process should be repeated separately for each additional section of the column, being careful to follow the same procedures as above, keeping the column and newly joined sections, level with the ground at all times.

For Mid Hinged Columns, slip joints above the hinge point, are to be additionally secured with two Tek screws as shown below.

All Mid Hinged Columns are provided with a chain and shackle arrangement welded to the top of the column adjacent to the column spigot. This is used as an additional attachment point for light fittings and other equipment in the event that their securing devices fail during lowering of the column. For equipment that cannot be secured by this chain and shackle arrangement, such as spigot mounted light fittings, the procedure below is to be followed.

Once the equipment is mounted to the column spigot, a hole is to be drilled through both the equipment mounting spigot and pole spigot. Care is to be taken not to drill through the cables running through the column. Then a bolt is to be threaded through both

the equipment mounting spigot and pole spigot and securely fastened. This will ensure that the equipment remains fastened securely to the column upon lowering the column.

G&S columns are welded horizontally on two opposing seams. On joining the sections together, it is important that these seams are lined up to ensure an accurate and secure fit.

A Tirfor Assembly Unit can be made available for column assembly for our client's upon request.

If problems occur during the assembly of the column(s), stop work and contact G&S Industries immediately.

(Next page for column assembly diagram)

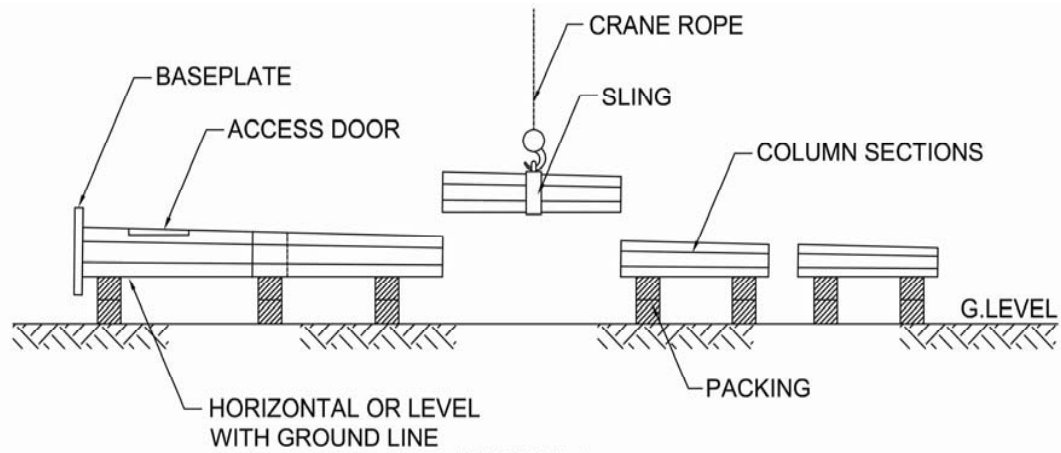


DIAGRAM 1

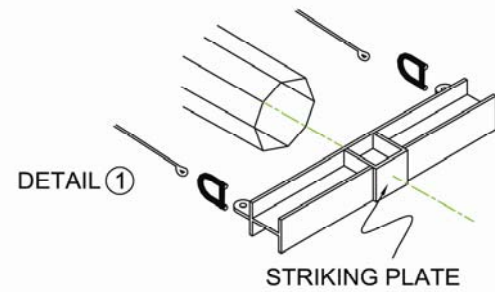
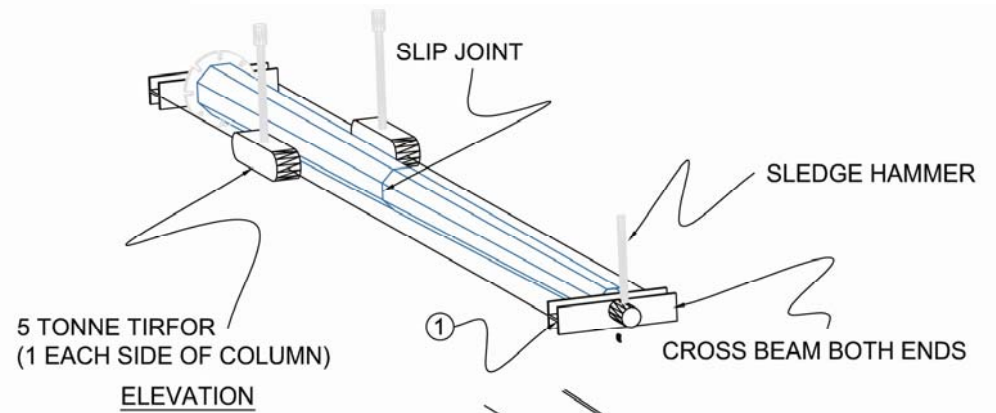


DIAGRAM 2