

Bolt 'n' Go Chain and Flight System

– Explanation and Case Study –

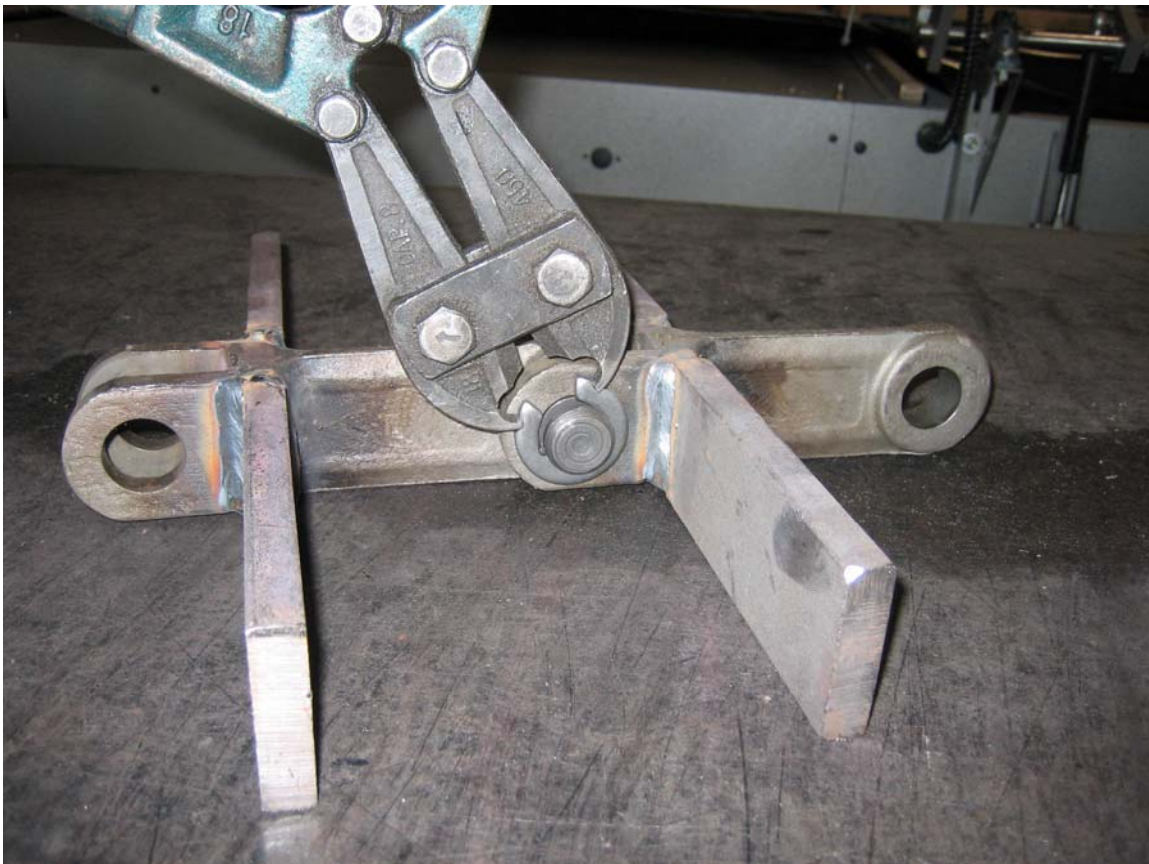
The Bolt 'n' Go chain and flight system is a revolutionary assembly method for drop forged and round link conveyor chain systems. The link and flight assembly is made easier by attaching the flight to the chain link using a standard bolt and nut, with a high case hardness and high tensile hollow pin. Traditional chain systems have used pins and circlips. The problem with this system is that during any maintenance repairs on the chain, the whole chain would have to be lifted out of the conveyor to conduct repairs. This results in large down time in production and high maintenance costs.

Image of Bolt 'n' Go system layout image



With the Bolt 'n' Go system, to conduct repairs such as to change flights or pins can be done inside the conveyor, without even taking the tension out of the chain. Instead of welded flights, we are using bolt on flights, and again these can easily be changed without any fuss.

Image of traditional pin and circlips arrangement with welded flight (in new 4B chain brochure)



Another problem with traditional systems using pins and circlips, is that circlips can come off in some circumstances, causing the chain to become disconnected, and again downtime. With the bolt n go system, the pins, chain and flights are secured using a secured lock nut, which securely holds the system together in a consistent manner, but also facilitating easy and safe removal when required.

One of the first installations to use this system was in November of 2006 at **CHS, Superior, WI**. The facility handles several commodities which include wheat and soybeans at the rate of around 70,000,000 bushels per annum. They have several drag conveyors which use drop forged chain, with the traditional pin and circlip assembly. While this has proved a reliable assemble method for them, it has proved time consuming when changing out bent or broken chain flights.



Bill Hoffer, Head of Maintenance said of the system “We installed 4B’s new Bolt ‘n’ Go chain, and I am pleased with the results. The Bolt ‘n’ Go chain is very easy and fast to install and maintain, as you eliminate the need to separate the chain each time while installing a new flight. Also there is no need to slacken of the chain or re-tension while changing flights. This alone will save untold hours on the routine maintenance of these conveyors” He goes onto to say “the Bolt ‘n’ Go system has been in service for well over 12 months, is running great and no problems”.



Bolt 'n' Go chain system installed and running successfully at CHS



The Bolt 'n' Go chain system is available for 102, 142 and 142mm Heavy metric link ranges. Steel or Nylon flights are available. The Bolt 'n' Go steel flights are not required to be as thick as the welded variety, due to the fact that the welded flights are so thick as to compensate for the weld only. The steel bolt n go flights are very strong as have a consistent construction, and anything over 400mm width, a further steel backing plate is used for extra strength and resistance. The heavy duty Nylon flights again bolt straight through the pins, with no need to bolt on or slide over existing steel flights. The Nylon flights also have excellent wear, strength and resistance capabilities.

The Bolt 'n' Go pin / bolt assembly system can also be used with the traditional welded flight system, to replace the traditional pin and circlip arrangement. This like the bolt n go flight system is very easy to change over to for the maintenance team on site.



Case Study

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The Bolt 'n' Go system is also available for round link chain, whereby the system works under a similar system of nylon flights being bolted directly to the chain, in this case without pins.

The Bolt 'n' Go system is all about making life easier for the end user, ease of use, inexpensive and above all low maintenance and down time.

Dave Wolstencroft

4B Group Product Manager – Chain