The Differential Carrier

by Tom Endy

Description:

The differential carrier is the device the ring gear is bolted to and it is located inside the rear axle assembly. There are two halves to the carrier assembly. Inside the two halves is located the three spider gears and the gear end of each rear axle. There are nine carrier bolts and nuts that hold the two halves together.

Early Carriers:

The early carriers used at the beginning of production are identical halves. Each half is the same part number A-4205. The ring gear can be installed on either half. The mating surfaces are not notched where the two halves join together; they join together flush with one another. The nine bolts have a half round domed head. The head of the bolts go on the carrier half on the opposite side from the ring gear. The flat side of the domed bolt head fits up against the machined surface where the ring gear would install if this half were used for the ring gear side. This prevents the bolts from rotating when the nuts are tightened. The nine nuts mount flush against the ring gear surface.

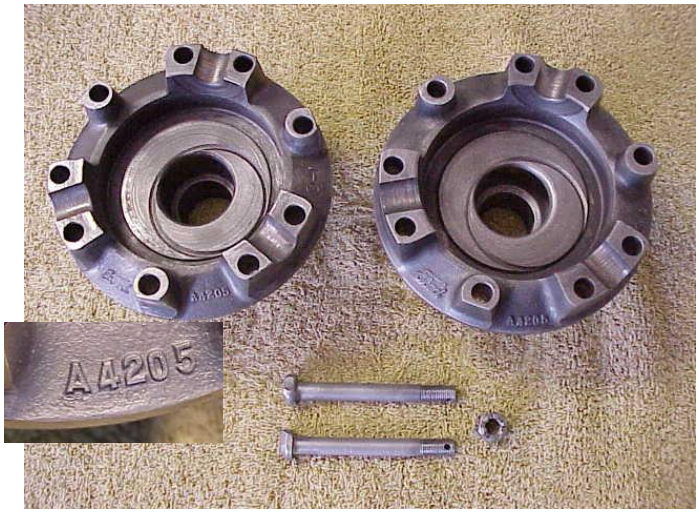
Later Carriers:

The later carriers were introduced some time after production began. The two halves are not identical and each half has a separate part number. The ring gear side is part number A-4205B and is the only side the ring gear will fit on. The opposite side is part number A-4206. The ring gear will not fit on this side. The surface where the two carrier halves join together is notched so that they lock together when joined. The nine mounting bolts have a flat rectangular head. The bolt head goes on the ring gear side with the bolt head flush against the ring gear surface. The nine nuts go on the A-4206 carrier. The nine bolts are able to rotate when tightening so it is necessary to hold the bolt head in place while tightening the nuts.

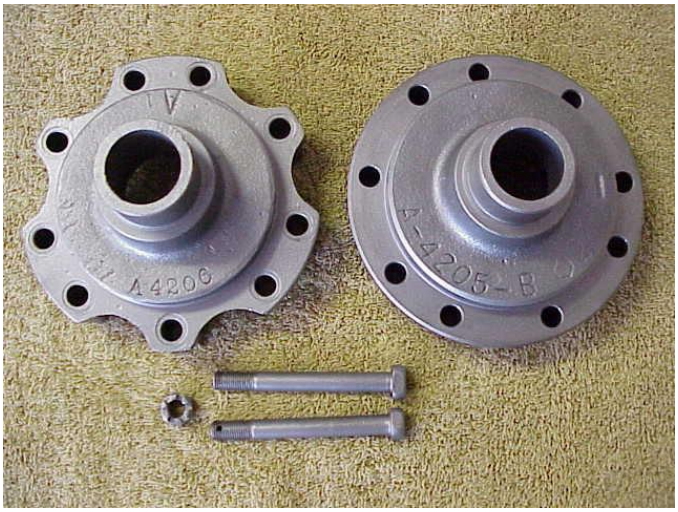
Nuts & Bolts:

The nine nuts and bolts used in ether assembly are a 3/8-24-thread size. The nine castellated nuts are the same for both. Early and late carrier bolts should all be torqued to 35 ft. lbs. and then safety wired.

The domed shaped bolts used in the early carriers lock into place and the safety wire holes in the end of the bolts will line up automatically. The flat headed bolts used in the later carriers have to be held in alignment with a wrench when tightening the nuts in order for the safety wire holes to line up.☺



The early carrier is shown here. Both halves are part number A-4205. The bolts used have a half round dome shaped head. The nuts sit flush on the surface of the ring gear. The surface where the two halves mate together is smooth and they mount flush together.



The later carrier is shown here. Each half is a different part number. The ring gear side on the right is part number A-4205-B. The other carrier half on the left is part number A-4206. The bolts used have a rectangular head. The head of the bolts sit flush on the surface of the ring gear. The surface where the two carrier halves mate together is notched so that they lock together.