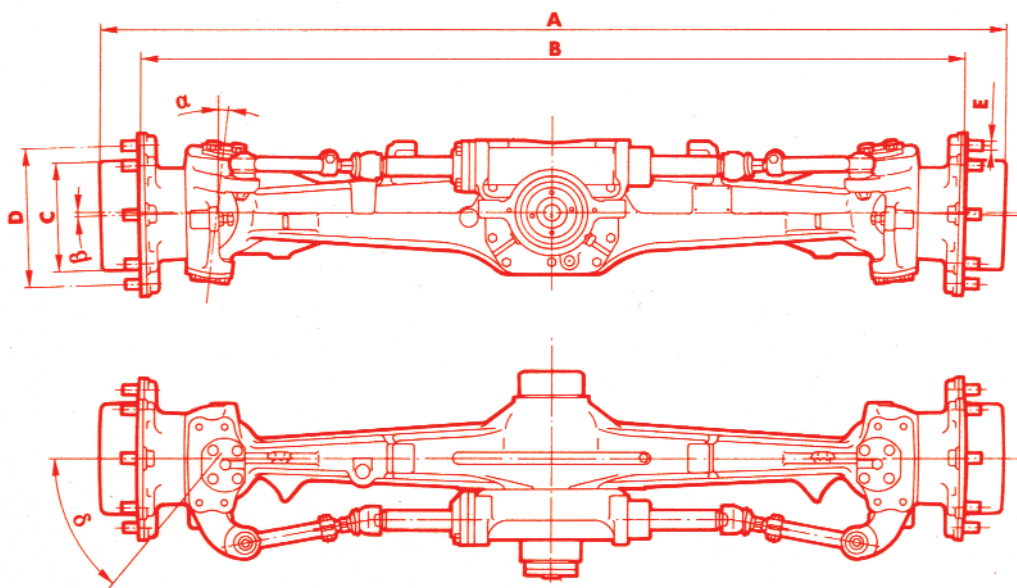


# Axles for agricultural applications

| Model             | A<br>Overall<br>width<br>(mm) | B<br>Flange<br>to<br>flange<br>(mm) | $\delta$<br>Max.<br>inner<br>wheel<br>angle | C<br>Hub<br>spigot<br>diameter<br>(mm) | D<br>Wheel<br>studs<br>P.C.D.<br>(mm) | E<br>Studs               | $\alpha$<br>King -<br>pin<br>angle | $\beta$<br>Camber<br>angle | $\phi$<br>Caster<br>angle | Peak<br>torque<br>(Nm) | Dynamic<br>load<br>capacity<br>(N) | Static<br>load<br>capacity<br>(N) |
|-------------------|-------------------------------|-------------------------------------|---|--|---------------------------------------|--------------------------|------------------------------------|----------------------------|---------------------------|------------------------|------------------------------------|-----------------------------------|
| 20.09V<br>Compact | 1030                          | 925                                 | 55°   | 160                                    | 205                                   | n. 6 studs<br>M18 x 1.5  | 7°                                 | 1°30'                      | 6°                        | 12500                  | 24000                              | 60000                             |
| 20.09F            | 1325                          | 1155                                | 55°   | 160                                    | 205                                   | n. 6 studs<br>M18 x 1.5  | 7°                                 | 1°30'                      | 6°                        | 14000                  | 24000                              | 60000                             |
| 20.09<br>STD      | 1725                          | 1555                                | 55°   | 160                                    | 205                                   | n. 6 studs<br>M18 x 1.5  | 7°                                 | 1°30'                      | 6°                        | 14000                  | 24000                              | 60000                             |
| 20.11             | 1716<br>1776<br>1846          | 1580<br>1640<br>1700                | 55°   | 220.8                                  | 275                                   | n. 8 studs<br>M18 x 1.5  | 7°                                 | 1°30'                      | 6°                        | 17500                  | 28000                              | 70000                             |
| 20.14             | 1740<br>1800<br>1860          | 1580<br>1640<br>1700                | 55°   | 220.8                                  | 275                                   | n. 8 studs<br>M18 x 1.5  | 7°                                 | 1°30'                      | 6°                        | 20500                  | 36000                              | 90000                             |
| 20.16             | 1740<br>1800<br>1860          | 1580<br>1640<br>1700                | 55°   | 220.8                                  | 275                                   | n. 8 studs<br>M18 x 1.5  | 7°                                 | 1°30'                      | 6°                        | 22500                  | 36000                              | 90000                             |
| 20.19             | 2045<br>2045                  | 1800<br>1900                        | 55°   | 220.8                                  | 275                                   | n. 8 studs<br>M18 x 1.5  | 7°                                 | 1°30'                      | 6°                        | 29000                  | 44000                              | 110000                            |
| 20.22             | 2045<br>2045                  | 1800<br>1900                        | 55°   | 220.8                                  | 275                                   | n. 8 studs<br>M18 x 1.5  | 7°                                 | 1°30'                      | 6°                        | 33000                  | 50000                              | 125000                            |
| 20.25             | 2090                          | 1890                                | 55°   | 280.8                                  | 335                                   | n. 10 studs<br>M22 x 1.5 | 7°                                 | 1°30'                      | 6°                        | 35000                  | 65000                              | 170000                            |
| 20.29             | 2150                          | 1900                                | 55°   | 280.8                                  | 335                                   | n. 10 studs<br>M22 x 1.5 | 7°                                 | 1°30'                      | 6°                        | 45000                  | 75000                              | 190000                            |
| 20.43             | 2206                          | 1900                                | 55°   | 280.8                                  | 335                                   | n. 10 studs<br>M22 x 1.5 | 7°                                 | 1°30'                      | 6°                        | 60000                  | 85000                              | 210000                            |
| 20.48             | 2245                          | 1890                                | 55°   | 280.8                                  | 335                                   | n. 10 studs<br>M22 x 1.5 | 7°                                 | 1°30'                      | 6°                        | 67000                  | 85000                              | 210000                            |
| 20.80             | 2300                          | 1890                                | 55°   | 370.8                                  | 425                                   | n. 12 studs<br>M22 x 1.5 | 7°                                 | 0°                         | 0°                        | 115000                 | 110000                             | 275000                            |



Information are to be considered indicative



# Axles for agricultural applications

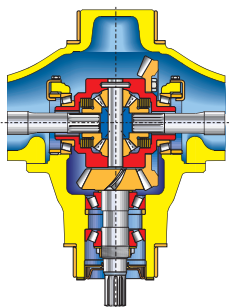
## Features

- **The widest and most complete range of steering drive axles** designed for tractor power ratings from 35 to 300 HP
- Possibility of obtaining **electronic control of the principal axle and tractor functions** - differential locking and front wheel drive engagement - on the basis of variables such as steering angle, tractor speed and other parameters. The axle thus becomes a perfectly integrated component of the vehicle as a whole
- **Simplicity and rapidity of servicing** thanks to the rational arrangement of the subcomponents which can be disassembled without having to use special tooling
- **Extreme adaptability** to the final user's most different needs thanks to the numerous options available and to the high standardization of the subcomponents adopted. Such standardization also allows customers and dealers to make significant saving in spare parts storage space
- **Elimination of routine servicing** thanks to adoption of long life lubricated U-joints and availability of waterproof seals

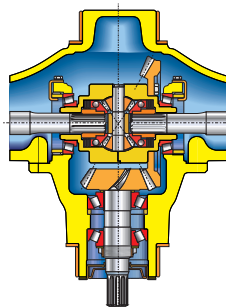
## Options

- **2 different self-locking differentials** (standard and ball-type limited slip) and **2 different kinds of hydraulically controlled** (clutch and pins) **100% lock**, guarantee correct traction in all conditions
- The **oil-immersed hub located service brakes**, easily accessible upstream of the planetary reduction, ensure adequate braking power even at high speed
- The **wide variety of integrated cylinder dimensions** affords realization of an extremely flexible steering system and maximum adaptability toward meeting the various requirements of the vehicle itself
- The **2 possible methods of fitting** - above center pivot and trunnion mounting, with relative specific anchorings - as well as the numerous available types of input flange, afford the Carraro axle a high degree of adaptability to the customer's tractor
- The possibility of fitting up the axle with **waterproof seals** assures maximum reliability even when cultivating in the most unfavorable environmental conditions
- Other options, such as **final painting, filling up with lubricating oil and wheel nuts** complete the axle making it ready for immediate fitting upon receipt without having to carry out any further operations

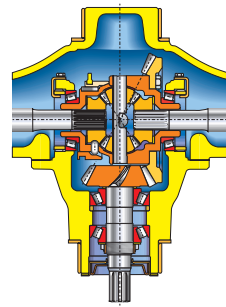
Limited slip differential lock



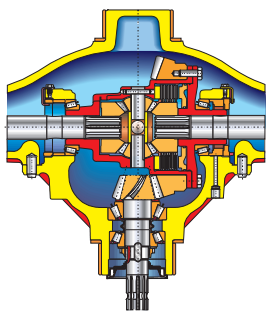
"Ball-type" lim-slip differential lock (Carraro patent)



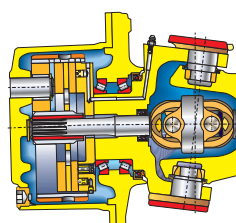
100% mechanical (hydraulic actuation) differential lock



Differential lock with multidisc wet clutch



Wet brakes



Waterproof seals

