steering of a car

Mark Müller Benjamin Mees Manuel Naujoks



agenda

car steering

turning the car

steering

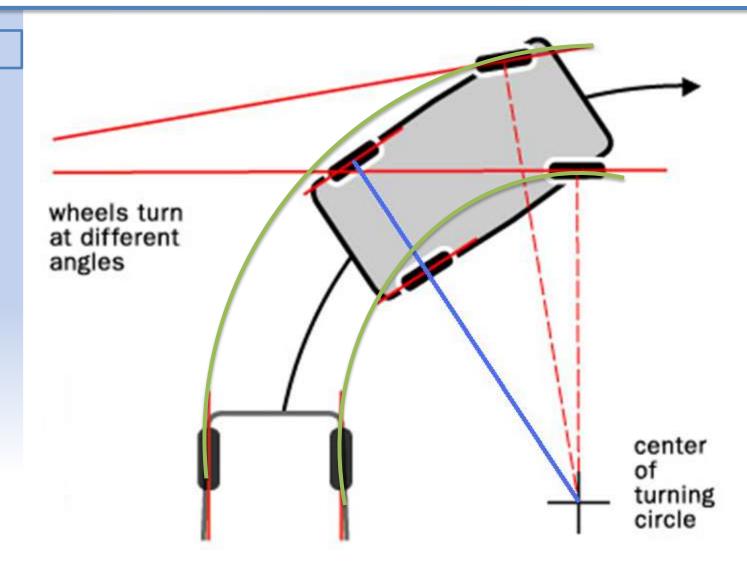
power steering

summary

turning the car

car steering

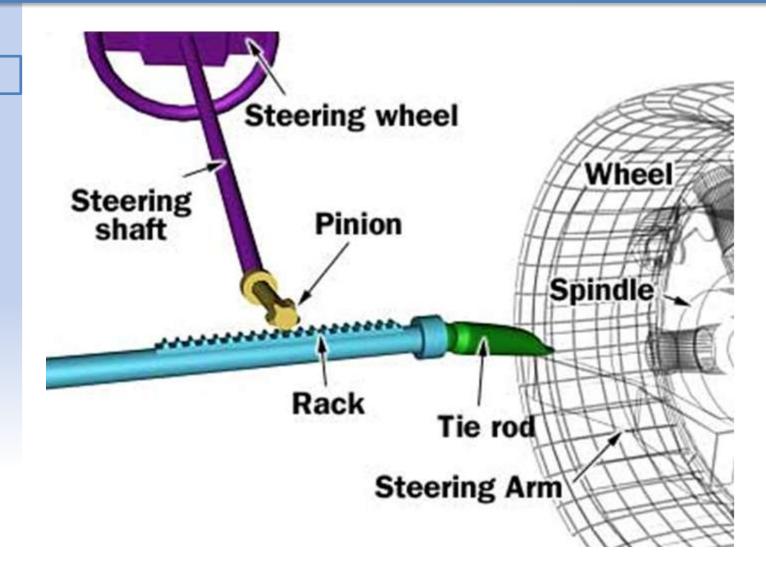
steering power steering summary



rack & pinion

car steering

turning the car steering power steering summary



rack & pinion

car steering

turning the car steering power steering summary

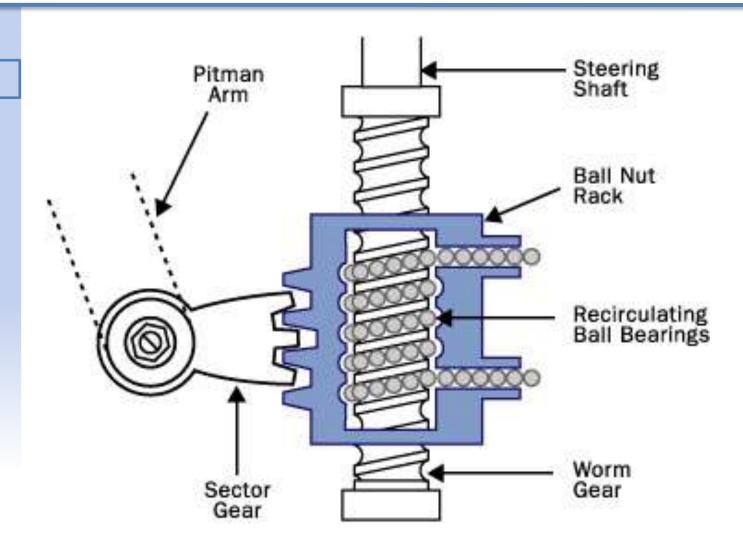
It converts the rotational motion of the steering wheel into the linear motion needed to turn the wheels.

It provides a gear reduction, making it easier to turn the wheels.

recirculating balls

car steering

turning the car steering power steering summary



operational areas

car steering

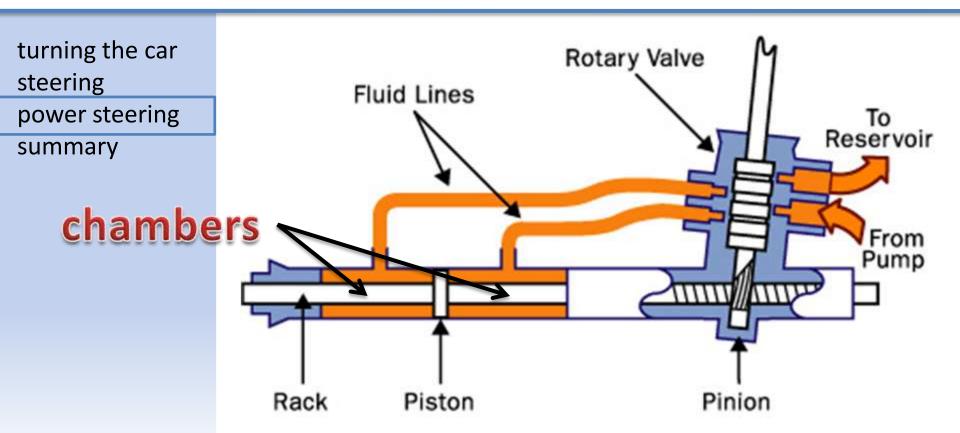
turning the car steering power steering summary

rack & pinion steering cars, small trucks, SUVs

recirculating-ball steering heavy vehicles and trucks

rack & pinion

car steering



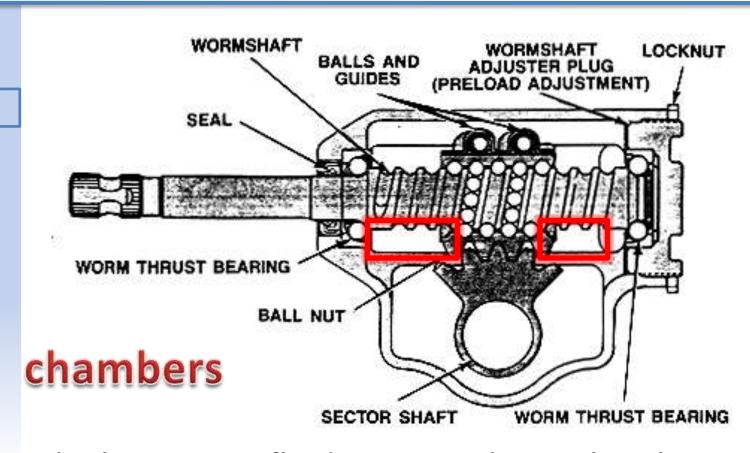
high pressure fluid is injected into chamber fluid assists moving the rack

recirculating balls

car steering

turning the car steering

power steering summary



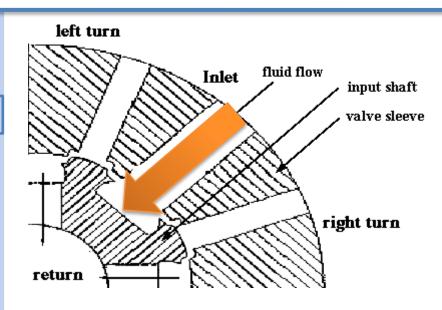
high pressure fluid is injected into chamber fluid assists moving the rack

high pressure fluid

car steering

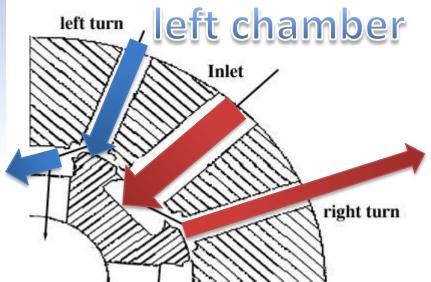
steering
nower steering

power steering summary



rotary valve

- Hydraulic PS
- Electric PS



right chamber

future

car steering

turning the car steering

power steering summary

drive-by-wire

whole steering computer controled no rack connection of steering wheel

much more efficient

conclusion

car steering

turning the car steering power steering summary

rack & pinion steering recirculating-ball steering power steering drive-by-wire



thank you for your attention and have a nice day