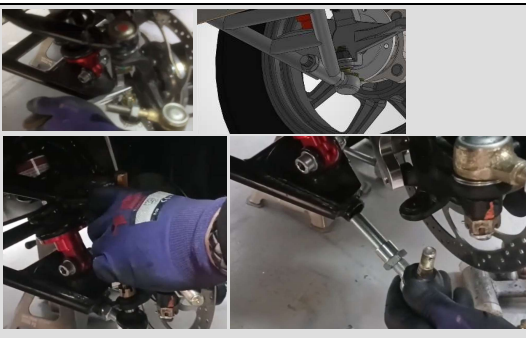


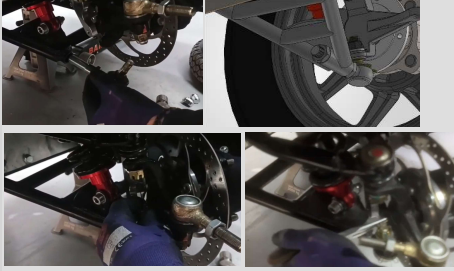
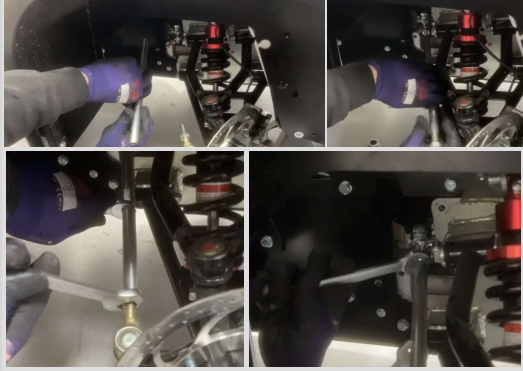
REPAIR SHEET - Inferior hub joint replacement.

REASON:

OPERATOR	WORKSHOP	DATE
REGISTRATION	TIME 0h 41min	COST

REQUIRED TOOLS			SAFETY	
☐ Hydraulic jack	☐ 14, 17, 18, 19 and 24mm wrenches	☐	☐ Steel toe cap shoes	
☐ Jack stand	☐ flat center punch	☐	☐ Gloves	
☐ Impact drill	☐ Needle-nose pliers	☐		
☐ 19mm impact drill socket	☐ Hammer	☐		
☐ 13mm hexagonal socket	☐	☐		

	TOOLS	PROCESS	ASSEMBLY DRAWING	ESTIMATED TIME
1	Hydraulic jack, Jack stand.	Lifting the vehicle. 1- Place the hydraulic jack at the front of the vehicle so that its anchor point is in the middle of the beam and as far forward as possible. 2- Once the vehicle is lifted enough, slide the jack stand under the beam and release the pressure on the jack.		5
		REMARKS		REAL TIME
2	Impact drill, 19mm impact drill socket.	Front wheel removal. 1- Using the impact drill and a 19mm hex socket, unscrew the four wheel lug nuts. Slide the wheel out and move it away from the work area. 2- Repeat the operation on both sides.		4
		REMARKS		REAL TIME
3	14mm, 17mm and 19mm fixed hexagonal wrenches.	Steering rod disassembly. 1- Using a 14mm wrench, hold the steering rod and with a 19mm wrench, unscrew the outer fastening nut of the steering rod. 2- Holding the steering rod with the 14mm wrench, unscrew the inner fastening nut with the 17mm wrench. 3- Unscrew the rod to remove it.		6
		REMARKS		REAL TIME
4	18mm and 24mm fixed hexagonal wrenches.	Disassembly of the lower control arm ball joint. 1- Mark the position of the camber adjustment nut on the shaft that connects the ball joint to the control arm with a marker. Using needle-nose pliers, remove the retaining pin from the crown nut. With an 18mm wrench, loosen the crown nut without removing it so that the tip of the bolt remains protected. 2- Using a 24mm wrench, loosen the inner support nut of the control arm ball joint (see image). 3- Place the punch on the crown nut of the control arm ball joint and, using a hammer, lightly tap repeatedly until the assembly comes apart. Unscrew the crown nut and remove the lower control arm ball joint.		5
		REMARKS		REAL TIME

	TOOLS	PROCESS	ASSEMBLY DRAWING	ESTIMATED TIME
5	18mm and 24mm fixed hexagonal wrenches.	Assembly of the lower trapezoid ball joint. 1- Position the trapezoid ball joint and screw in the nut on the inner part of the lower trapezoid (see image) using a 24mm open-end wrench. ATTENTION: Make sure that the ball joint adjustment nut is in the same position as before disassembly, using the mark made prior to disassembly. 2- Screw and tighten the crown nut with an 18mm open-end wrench and slide and secure the pin.		6
		REMARKS		REAL TIME
6	14mm, 17mm and 19mm fixed hexagonal wrenches.	Steering tie rod assembly. 1- Measure the distance from ball joint to ball joint on the opposite side. 2- Screw the steering tie rod into the outer ball joint clockwise for 5 turns. 3- Align the steering tie rod with the stud of the inner ball joint and screw clockwise until the ball joint-to-ball joint distance is the same as on the opposite side. 4- Tighten the locking nuts following the reverse procedure of step 3. 5- Once the tie rod is adjusted and tightened, repeat steps 3, 4, and 5 on the opposite side.		10
		REMARKS		REAL TIME
7	Impact drill, 19mm impact drill socket.	Front wheel assembly. 1- Align the four holes in the rim with the four studs on the hub and slide it until it stops against the hub. 2- Hand-tighten the four lug nuts and then tighten them using an impact drill and a 19mm socket. 3- Repeat on both sides. Once both wheels are mounted and tight, lower the vehicle by following step number 1 in reverse.		5
		REMARKS		REAL TIME