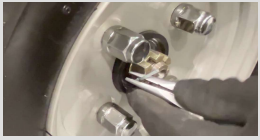


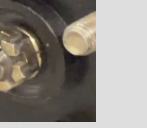
REPAIR SHEET - Brake disc replacement

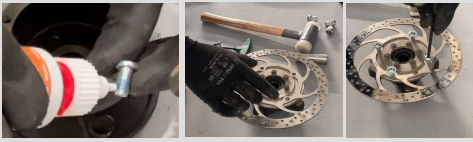
REASON: Worn out or damaged brake disc.

OPERATOR	WORKSHOP	DATE
REGISTRATION	TIME 1h 4min	COST

REQUIRED TOOLS			SAFETY
☐ 5mm allen wrench	☐ Hub extractor	☐ Thread sealant	☐ Safety goggles
☐ 19, 24 and 30 mm impact drill socket	☐ 17mm fixed hexagonal wrench	☐ Plastic hammer	☐ Gloves
☐ Impact drill	☐ Hammer	☐	☐ Steel toe cap shoes
☐ microfiber cloth	☐ Hydraulic jack	☐	☐
☐ brake cleaner	☐ Pliers	☐	☐

TOOLS	PROCESS	ASSEMBLY DRAWING	ESTIMATED TIME
1 Hydraulic jack.	Lifting the vehicle: 1. Center the jack on the chassis beam and operate its hydraulic system until the wheels are 5 centimeters off the ground. IMPORTANT: Once the wheels are removed, do not release the jack's pressure before reinstalling them.		1
REMARKS			REAL TIME
2 19mm impact drill socket, Impact drill.	Removal of the rear wheels: 1- Using a 19mm hexagonal socket and an impact drill, loosen the four nuts that secure the wheel to the hub. 2- Slide the wheel outwards and put it away from the work area.	 	2
REMARKS			REAL TIME
3 5mm allen wrench.	Removal of the brake and handbrake calipers: 1- Using a 5mm Allen wrench, unscrew the two bolts on each brake caliper. 2- Hang them up so they don't obstruct the rest of the process.	 	5
REMARKS			REAL TIME
4 Pliers, 30mm hex socket, Impact drill, Hub extractor, 17mm hexagonal wrench.	Rear Hub Removal: 1- Using pliers, loosen the center nut's locking pin by prying it off. 2- Using a 30mm hex socket and an impact drill, unscrew the center nut. 3- Position the hub extractor, aligning the center bolt with the hub axle and placing the three tabs of the hub extractor against the hub's edge. 4- Tighten the center bolt with a 17mm wrench and deliver a sharp tap to the center of the bolt. Caution: Throughout the hub removal process, ensure you hold the hub securely, as the exact moment of removal is unpredictable.	     	4
REMARKS			REAL TIME

	TOOLS	PROCESS	ASSEMBLY DRAWING	ESTIMATED TIME
5	5mm allen wrench.	Disassembly of the rear hub-disc assembly: 1- Using a 5mm Allen wrench, unscrew the four bolts that secure the brake disc to the hub. 2- Remove the disc.	 	6
		REMARKS	REAL TIME	
6	Microfiber cloth, Brake cleaner, 5mm allen wrench, thread sealant	Hub-disc reassembly: 1- Using a microfiber cloth and brake cleaner, clean the new brake disc. 2- Once the new disc is clean, align it with the four holes in the hub, apply thread sealant to the four bolts, and tighten them with a 5mm Allen wrench.	 	6
		REMARKS	REAL TIME	
7	Impact drill, 30mm hexagonal impact socket, Pliers.	Rear Hub Assembly: 1- Place the spring and cotter pin on the rear axle. 2- Slide the hub along the axle until it stops against the spring. Place the lock washer and the center lock nut, and tighten with an impact drill and a 30mm hex socket until the hole in the lock pin is aligned with one of the slots in the center nut. Caution: Brake caliper and handbrake hoses can become trapped between the disc and the bracket. 3- Insert the lock pin into the nut and, using pliers, bend the arms so that it is secured.	     	4
		REMARKS	REAL TIME	
8	5mm allen wrench.	Brake caliper and handbrake installation: 1- Align the brake caliper with the disc and tighten the two bolts, each with its washer. 2- Ensure the disc does not rub against the brake pads when the brakes are not applied, and tighten with a 5mm Allen wrench.	 	8
		REMARKS	REAL TIME	
9	Impact drill, 19mm hexagonal socket.	Rear Wheel Installation: 1. Slide the rear wheel onto the four hub bolts. 2. Tighten the four nuts using an impact drill and a 19mm hex socket. Repeat from step 2 on the opposite side.	 	4
		REMARKS	REAL TIME	
10	Hydraulic jack.	Lowering the vehicle: Once both rear wheels are mounted, release the pressure on the hydraulic jack and raise the vehicle from the front.		1
		REMARKS	REAL TIME	

	TOOLS	PROCESS	ASSEMBLY DRAWING	ESTIMATED TIME
11	Impact drill, Boca de vaso hexagonal de 19mm hexagonal socket.	Front wheel removal: 1- Using an impact drill, loosen the four nuts securing the front wheel to the hub. 2- Slide the wheel off and away from the work area.		2
	REMARKS			REAL TIME
12	5mm allen wrench.	Brake caliper removal: 1- Using a 5mm Allen wrench, unscrew the two bolts that secure the brake caliper to its bracket. 2- Position the brake caliper so that it is out of the way.		4
	REMARKS			REAL TIME
13	Plastic hammer, Impact drill, 24mm hexagonal socket, Pliers.	Front Hub Removal: 1- Using a rubber mallet, tap the hub nut cover. 2- Using pliers, straighten the retaining pin of the hub center nut. 3- Using an impact drill and a 24mm socket, unscrew the hub center nut and remove the hub.		6
	REMARKS			REAL TIME
14	5mm allen wrench.	Disassembly of the front hub-disc assembly: 1- Using a 5mm Allen key, unscrew the 4 bolts that connect the brake disc and the front hub.		2
	REMARKS			REAL TIME
15	5mm allen wrench, thread sealant.	Front hub-disc assembly: 1- Apply thread sealant to the four bolts. 2- Align the brake disc with the four holes and tighten the bolts using a 5mm Allen wrench.		2
	REMARKS			REAL TIME
16	Impact wrench, 24mm hexagonal socket, Pliers.	Front Hub Installation: To install the front hub, follow the front hub removal steps in reverse order.		4
	REMARKS			REAL TIME
17	Impact drill, 19mm hexagonal socket.	Front Wheel Installation: To install the front wheel, follow the installation steps in reverse order. Repeat the operation from step 11 on the opposite side.		2
	REMARKS			REAL TIME
18	Hydraulic jack.	Lowering the vehicle: Once both of the front wheels are mounted, release the pressure of the hydraulic jack until the vehicle rests on the ground.		1
	REMARKS			REAL TIME