

Removing the Assembly



**CRITICAL TO
SAFETY**

Employees are not permitted to enter the zone beneath a lifted vehicle.

(No feet or legs under the vehicle)

- Keep hands away from the spinning shaft of the impact gun and socket
- Lift assembly off hub by tread. Never lift assembly off hub by the spokes
- When removing stuck/damaged lugs or wheel locks that require the use of a hammer, use the thread shaker and goggles.

On removal of EACH assembly:

- Inspect all lugs – let your supervisor know if missing or damaged
- Inspect all studs – vehicle cannot be released with more than one stripped or missing stud per assembly
- Inspect lug seats of wheel – if damaged or incorrect bolt pattern, inform your supervisor
- Buff the hub, wheel mounting pad, and wheel pilot hole



**CRITICAL TO
QUALITY**

- Remove the wheel lock first
- Complete an off the vehicle inspection of the tire

The Whys

- Removing the wheel lock first gives you the earliest notice that they may be seized or that the key is broken or missing
- If removing locks without the key is necessary, the wheel is still secured by the other lug nuts, reducing the chance of scratching a wheel with removal tools
- Damage, wear, or gouging of the lug seat, threads, stud, or wheel seat can cause excessive friction, which can reduce overall torque on the wheel
- Missing, broken, or unusable studs reduce the overall torque on the wheel. More than one missing stud is too many on any bolt pattern

- Buffing the hub removes loose/soft material (for example, rust) that can settle out during driving and reduce the overall torque
- A wheel with the incorrect bolt pattern will cause undue stress to the stud or lug bolt, increasing the chance of it breaking. The wheel can also bolt up off-center, causing vibration issues
- Keeping your body out of the zone beneath the vehicle when removing stuck assemblies ensures you are not pinched by the vehicle if it shifts
- Injuries can occur from entanglement, or from sharp edges on sockets and lug nuts when free hand is placed on the impact gun shaft or socket while it is spinning
- Injuries can occur when lifting the assembly off the hub by the spokes when fingers are pinched between the wheel and brake or suspension parts.
- Sockets are not designed to be hit directly with a hammer, so always use the thread shaker when using a hammer to remove stuck/damaged lugs or wheel locks. Goggles provide greater protection than safety glasses when using a hammer to protect eyes from flying shards of metal.