New Product # 4

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New Hdi Argo Avenger 750HDi Transmission Operating Instructions

The 2010 ARGO 750 HDi is equipped with the ADMIRAL steering transmission. The ADMIRAL is a triple differential transmission with unique steering characteristics not found in traditional skid steer vehicles. The ADMIRAL features two distinct modes of operation, HIGH range for typical trail riding and LOW range when tight turns are required. This transmission allows the ARGO to tackle a wider range of terrains and operating conditions.

When operating in HIGH range, a ***full lock right steering input*** will cause the right side wheels to turn forward at a lower rate (approximately 1/3 the speed) compared to the left side wheels and vise versa when ***full lock left steering input*** is applied. While this does not allow for zero radius turns, as found on Avenger and Frontier models, it does greatly increase efficiency, reduces engine, transmission & brake temperatures and reduces driver steering effort.

When operating in LOW range, a ***full lock right steering input*** will cause the right side wheels to turn backwards slightly. This will result in a tighter turn compared to transmissions found on the Avenger and Frontier. This mode of operation should only be used for slow speed operation when tight turning is required.

NOTE: Extended use of Low range at higher speeds may result in increased engine, transmission and brake temperatures. This mode of operation should be avoided unless the terrain or obstacles warrants its use.

Selecting Forward, Neutral, Reverse, High or Low

The Admiral transmission uses dog clutches to engage internal gears. The dog clutch is not synchronized to allow for shifting-on-the-fly. To avoid personal injury, transmission, vehicle or property damage, always bring the vehicle to a complete stop, allow the engine to come-down-to-idle, compress and hold hydraulic hand brake, then select the appropriate gear function. Once selected, release the hydraulic hand brake and accelerate to desired speed.

NOTE: When selecting from HI to LOW or LOW to HI, the dog clutch may not automatically engage its mating gear. This is normal and expected. The HI and LOW selector is spring-loaded and will lock into place once engine RPM rises and clutches begin to engage. A slight, but normal, "clunk" noise may be heard during this procedure

Recommended Gear Selections

Trails and higher speed driving: Recommended gear selection HIGH range: In High range, the 750HDi will turn as tight as most ATV's and UTV's, which is ideal for trail riding. Compared to previous braked skid steer vehicles, the HDi will corner with minimal loss of speed or engine power. The increased efficiency results in cooler running temperatures for the engine, transmission and steering system.

Towing: Recommended gear selection HIGH range: With increased efficiency and positive all-wheel drive in high range, the operator is able to maintain momentum, traction and control while under load. Engine power and smooth steering is maintained, point-turn operation is eliminated, allowing for smooth operation and towing. The elimination of point-turn while in high range reduces the likelihood of a "jackknife" situation.

Climbing hills: Recommended gear selection HIGH range: Similar to a towing situation, climbing hills successfully means maintaining traction and momentum. It is usually unwise (and unsafe) to perform sharp turns while climbing hills, so Low range, if required, should be used with caution in these situation.

Mud and Snow: Recommended gear selection HIGH or LOW range: Low traction situations are usually handled best in high range due to the fact that any turning inputs will "lock the differential" and force all 8 wheels to drive. If tightly spaced obstacles are present, low range will provide added maneuverability, albeit at a cost in both traction and efficiency.

Water / Amphibious use: Recommended gear selection HIGH or LOW range: While operating the vehicle in deep water, either range selection may be appropriate. In High range, the operator may notice a lack of maneuverability, especially at full throttle. In Low range, the inside, or steered, tires can counter rotate thereby providing greater maneuverability and control when turning the vehicle. There is a slight reduction of top speed when selecting Low range for water / amphibious use.

Low speed (with obstacles): Recommended gear selection Low range: While traversing a rock field or a wooded area, increased maneuverability available in Low range is a valuable asset. Switching back to High is highly recommended when the terrain clears and tight / sharp turning is not required.