DURACLUTCH OPERATION
POLARIS RANGER or RZR OWNER'S MANUAL SUPPLEMENT

SVI, LLC 14MAR2017 REV2

This Owner's Manual Supplement provides additional vehicle operating information for the DURACLUTCH. In addition observe the MAINTENANCE section in the Owner's Manual for the POLARIS Variable Transmission (PVT) System. See the DURACLUTCH Installation Instructions for drive belt installation for the DURACLUTCH.

Place this supplement in the Vehicle Owner's Manual.
OBSERVE ALL OWNER'S MANUAL SAFETY INSTRUCTIONS AND WARNINGS.

WARNING! NEVER OPERATE THE VEHICLE WITHOUT THE CLUTCH HOUSING SECURELY IN PLACE. IF YOU DO, THIS COULD RESULT IN SEVERE INJURY OR DEATH.

DURACLUTCH OPERATION

1. Place the gear selector in HI when driving on hard packed trails and LO when driving off-road, hauling loads and towing. For slow technical driving in mud, rocks and tight trails LO must be used. If you smell the clutch packs shift to LO immediately. See # 2.

2. If you put the gear selector in HI when you should be in LO the clutch packs will slip saving the belt and give off a brake pad smell when they get hot. This is a signal to shift to LO gear. This is not the belt burning. This will not hurt the clutch packs if done occasionally. However if this is done frequently the clutch packs will wear out prematurely. If you do this continually this is abuse and the clutch packs will burn out.

3. Engine braking. Use caution when ascending or descending hills. DURACLUTCH engine braking is designed to be slightly aggressive in LO and "felt" in HI. This generally works well for all around use. The engine braking is designed so the wheels will keep turning when descending a hill so the vehicle is controllable. If the wheels stop turning the vehicle will become hard to control. This requires driver technique as well. For example, if descending a steep hill vehicle control may be improved by using HI gear and slightly tapping the brakes while descending.
   WARNING! DO NOT ATTEMPT TO DRIVE ON HILLS STEEPER THAN YOUR DRIVING ABILITY. VEHICLE LOADING AND TOWING LOADS GREATLY AFFECTS THE CONTROLLABILITY OF THE VEHICLE. FAILURE TO OBSERVE THIS WARNING MAY RESULT IN SEVERE INJURY OR DEATH.

HOW THE DURACLUTCH WORKS:

1. A conventional clutch combines the clutch or engagement function with the Continuously Variable Transmission (CVT) function. The sheaves are disengaged from the belt when the vehicle is stopped and engage on the belt to start moving. After the belt is engaged the sheaves vary the ratio then operating as a Continuously Variable Transmission (CVT).

2. The DURACLUTCH separates the engagement function and CVT function. There are internal clutch packs in the Primary sheaves that provide the engagement function separate from the belt and CVT function. The belt is always engaged and tight. The clutch packs are tuned for the proper engagement RPM. The CVT function is tuned to match the engine with the vehicle load conditions for best all-around performance including engine braking. The clutch packs will wear over time as any brake pad material, while providing improved belt life. However if the clutch packs are abused such driving in HI gear when LO should be used. Or, installing larger diameter tires than O.E.M. tires without a corresponding drive train gear reduction, the clutch packs will wear prematurely. Clutch packs are serviceable by returning the clutch to the factory.

THERE ARE 3 MAJOR ADVANTAGES WITH THE DURACLUTCH.

1. Ultra smooth starts. The internal clutch pack shoes engage smoothly on steel drums.
2. Long belt life. The engagement function is not on the belt. The sheaves do not engage on the belt with corresponding belt slippage in the sheaves.
3. Positive engine braking. The belt is always tight providing consistent back driving when the vehicle is decelerating.