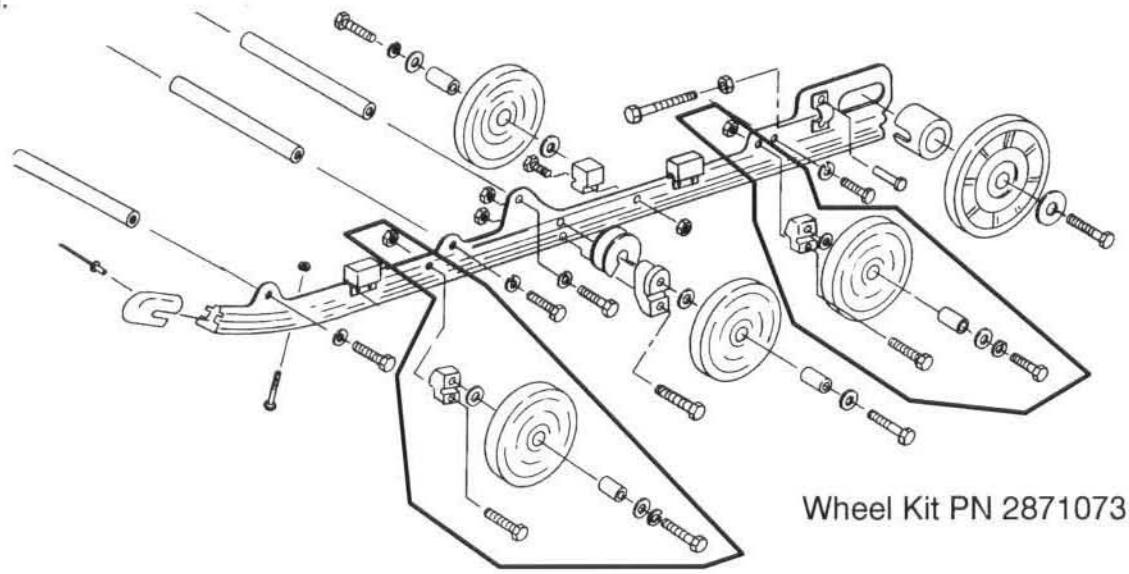
SUSPENSIONS
Type ITS - Improved Transfer Suspension

The Improved Transfer Suspension (ITS) is designed to retain less snow, transfer more unit weight to the rear of the suspension for improved performance and hook up more aggressively for a better hole shot. With the ITS there will be more track bearing surface on the ground. The ITS suspension is very responsive to the rider's body shifting forward and aft, increasing or decreasing ski pressure. Additional wheel kits are available (PN 2871073). A complete suspension, front and rear, will require two kits. **NOTE:** These wheels are standard on the Storm model.



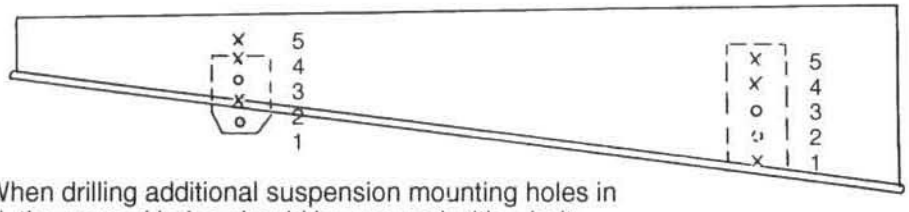
Wheel Kit PN 2871073

The ITS suspension has new design rails, rear springs, rear torque arms and bumper pads. **CAUTION:** The ITS suspension is **not** to be used in previous production models without tunnel modifications. Severe tunnel and/or drive shaft damage will result.

The ITS suspension must be adjusted in unison in the front and rear mounting holes. If you move down a hole in the front, you must do the same in the rear. You can move down one hole in the rear without moving the front, but not the reverse.

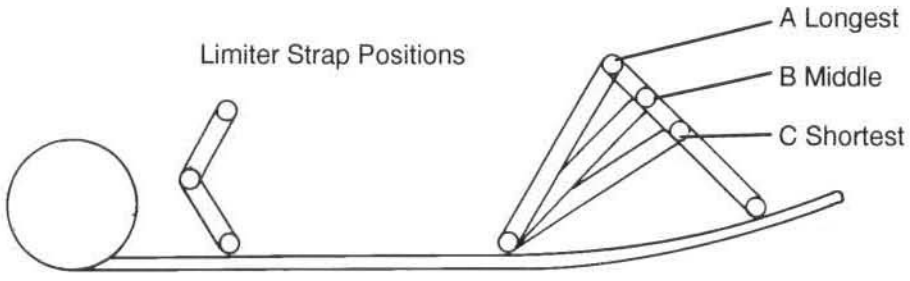
Rear Torque Arm Tunnel Positions

Front Torque Arm Tunnel Positions



NOTE: When drilling additional suspension mounting holes in the tunnel, the unused holes should be secured with a bolt and nut to increase tunnel and pad strength.

Limiter Strap Positions



Adjustments are open to driver preference. Remember that limiter strap adjustments will affect steering.

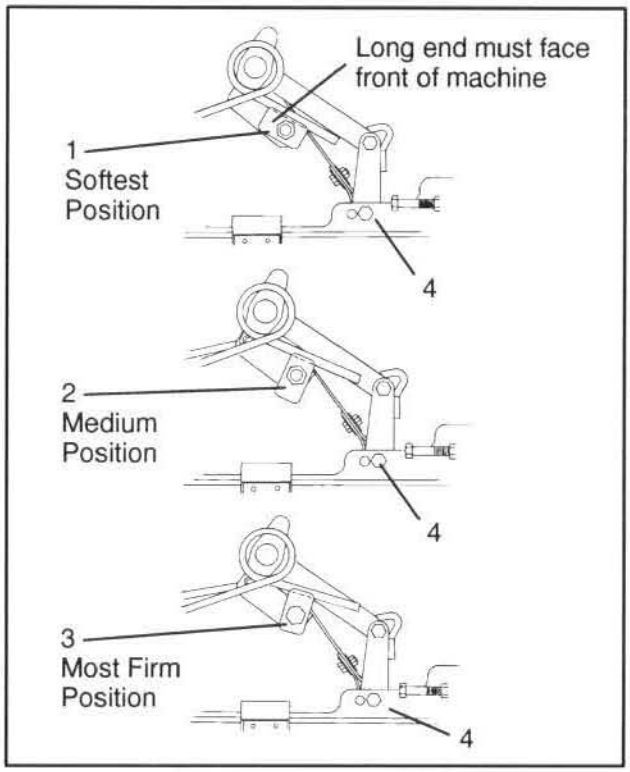
CAUTION: Using any location or track tension other than recommended will result in severe tunnel and/or drive shaft damage.

Rear spring tension adjustments are made by rotating the eccentric spring block as shown with the engine spark plug tool. The block provides three spring tensions positions. **NOTE:** This adjustment is easier if the long spring leg is lifted over the roller and replaced after the block is properly positioned.

1. Softest position - long end forward
2. Medium position - short end up
3. Most firm position - long end up

CAUTION: The long end of the block must never be positioned facing toward the rear of the machine or the block will break, or the spring may slip off the eccentric and gouge the track.

Rear scissor lower mount (4) should **not** be changed unless the eccentric block is positioned with the long end forward (softest position).



Suspension Adjustment Springs - ITS

Although the snowmobile's suspension has the capability of providing the best ride possible, the following accessory springs are available to better suit individual riding needs. Refer to the specification page in this section to find the spring used as standard equipment and determine from the chart below which spring best suits the individual's needs.

1993

Available Spring	Wire Dia.	Color	
7041276 Left Hand	.406	Tan	Lighter
7041277 Right Hand	.406	Tan	
7041273 Left Hand	.421	Orange	
7041274 Right Hand	.421	Orange	
7041278 Left Hand	.437	Red	
7041279 Right Hand	.437	Red	Heavier

1994

Available Spring	Wire Dia.	Color	
7041335 Left Hand	.406	Gray	Lighter
7041336 Right Hand	.406	Gray	
7041337 Left Hand	.421	Brown	
7041338 Right Hand	.421	Brown	
7041339 Left Hand	.437	Yellow	
7041340 Right Hand	.437	Yellow	Heavier

When changing rear suspension spring rate and/or rear ride height, the amount of downward ski pressure will change. If the pressure is too much, the handlebars will be hard to turn. If the pressure is too little, the skis will not dig in and the machine won't turn. The front of the rear suspension provides a number of adjustments so that the right ski pressure can be maintained. The rear suspension front shock top has two mounting positions. The more vertical position provides a stiffer suspension and less ski pressure while the more laid down position provides a smoother ride with more ski pressure. **NOTE:** The lower rear torque arm shock mount cannot be used or the suspension will not pivot.

In addition to the shock, there is a front torque arm limiter strap which controls the amount of downward travel in the front of the suspension rail. If the strap is lengthened, the front of the rail will push down more, lifting some pressure off the skis. Shortening the limiter strap will lift the front of the suspension, increasing ski downward pressure.

SUSPENSIONS
Type ITS Exploded View - Type I