COMET INDUSTRIES

a TENAX company

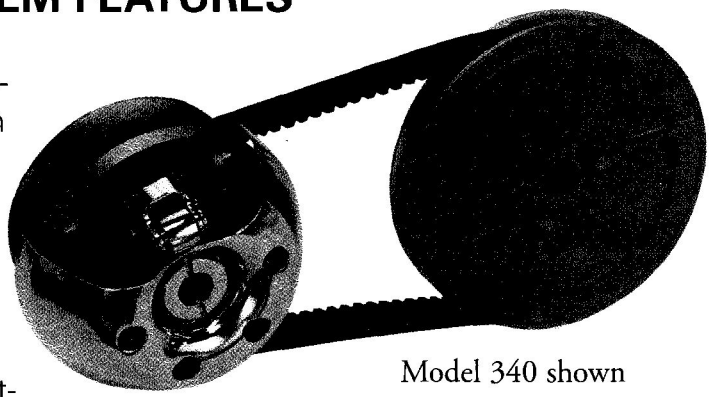
SALSBURY

Automatic Torque Converters

APPLICATIONS

**Junior Dragsters, Go-Karts, Mini-Bikes,
City Cars, Utility Vehicles,
Material Handling Equipment,
Industrial Equipment,
Lawn & Garden Equipment, Special Equipment**

SALSBURY SYSTEM FEATURES



Model 340 shown

These models are fully automatic , operating as a clutch and a transmission, easily controlled by the engine's throttle. Occupying minimal space, the system can be mounted in any position. Other benefits stemming from the automatic downshifting are improved braking and vehicle control. Finally, the continuous drive ratio selection made by these drives reduces wear on drive components normally used for manual shifting.

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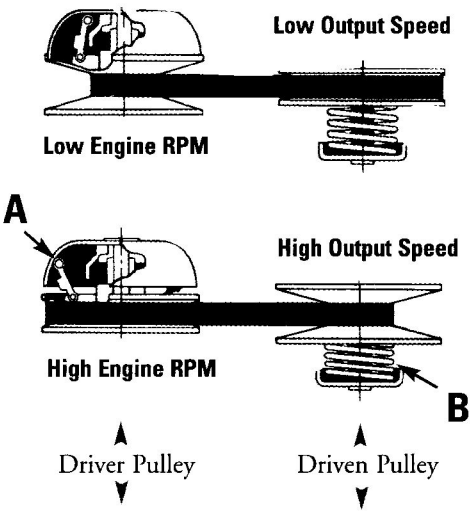
TWO TYPES OF DRIVEN PULLEY SYSTEMS AVAILABLE:

• Speed Sensitive

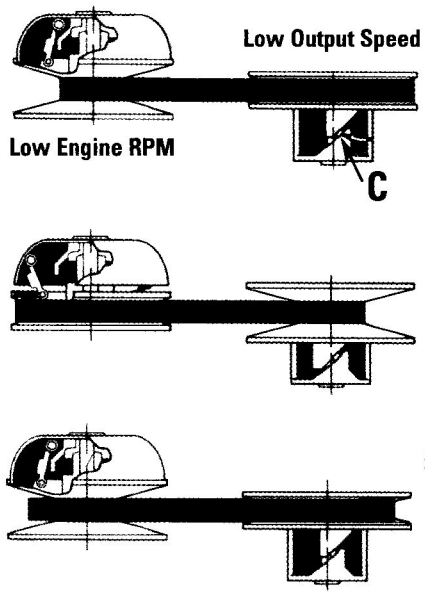


At low speeds the normal position of the driver pulley maintains the V-belt at a smaller diameter which, with the corresponding larger diameter on the driven pulley, creates a "low gear" ratio.

As the speed increases, the centrifugally actuated roller weights (A) follow the contour of the bowl-shaped ramp plate, forcing the driver sheaves together. this action through the belt compresses the driven-pulley spring (B), thus achieving a "high gear" ratio.

Belt alignment is critical in achieving optimum performance. Alignment to be set at top speed and full engagement.

• Torque Sensitive

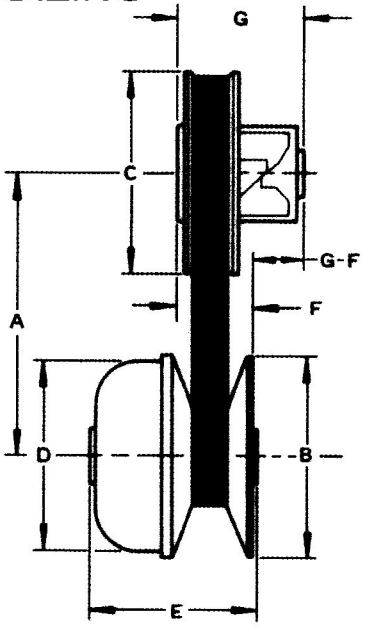


In the torque sensitive design, (as in the speed sensitive design) the normal position of the driver pulley at low engine speeds maintains the V-belt in a small diameter. Normal rotational force on cam actuator (C) keeps driven pulley in "low gear" ratio.

As the driver pulley is essentially the same in both type units, higher engine speeds cause the roller weights to close the driver pulley sheaves, creating a "high gear" ratio (note position of cam actuator).

If an increased load occurs (such as climbing a hill) after the vehicle is up to speed, the cam actuator on the driven pulley takes over and automatically "downshifts" without loss of engine speed. The engine remains at peak power range for all but the most severe loads, at which time it will shift into peak torque range.

Sizing



Approximate Dimensions (inches)

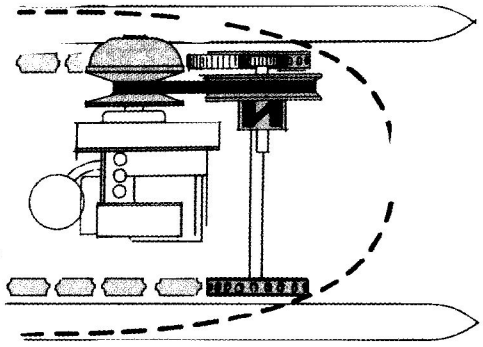
Model Number	A Min	A Max	B	C	D	E	F	G	G-F
330/340	7	13	4.8	6.0	5.2	3.3	1.2	3.1	1.9
500	7	14.3	5.7	7.5	6.2	4.5	1.8	4.3	2.5
510	7	14.3	5.7	8.3	6.2	5.0	2.9	3.7	0.8
700	8.1	13	7.2	9.8	6.2	4.8	1.8	4.3	2.5
770	8.8	17.2	7.2	9.8	6.2	4.8	2.1	4.3	2.2
780	8.5	17	7.2	9.2	6.2	4.8	2.1	4.3	2.2
790	8.1	18	7.2	8.5	6.2	4.8	2.1	4.3	2.2
858	8.5	18	6.6	8.6	6.2	4.8	2.8	4.0	1.2
1190	9.7	16.5	8	9.8	8.3	5.9	2.1	4.3	2.2

For special requirements contact the sales / marketing department

Applications:

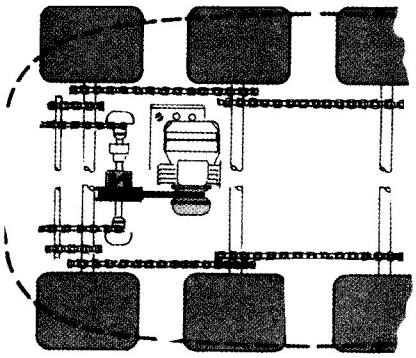
Snowmobile

Typical hook-up through belt or chain to dual sprocket track drive.



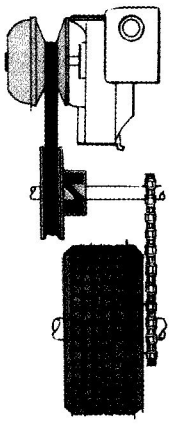
All-Terrain Vehicle

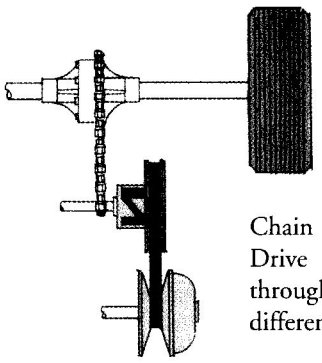
Shows typical 6-wheel chain drive with dual clutches for tank-type steering.



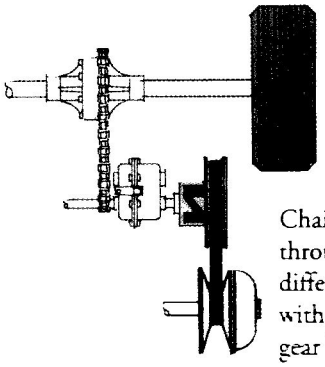
Mini-Bike or Vehicle

Use of jack-shaft to transmit variable ratio to drive wheel(s).





Chain Drive through differential.



Chain Drive through differential with reverse gear box.

COMPREHENSIVE SPECIFICATIONS LIST

Torque Converter Model	Drive		Driven		Belt Width Top	Reduction Ratio:1			H.P. Range		Maximum Bore Size		
	Model	Pulley Dia.	Model	Pulley Dia.		LO	HI	OA	2 Cycle	4 Cycle	Drive Taper	Drive Str.	Driven Str.
330	330	4.80	330	6.06	0.628	2.48	0.99	2.51	4 - 8	3 - 6	25mm	3/4"	3/4"
340	340	4.80	340	6.06	0.750	2.67	0.84	3.19	4 - 8	3 - 6	25mm	3/4"	3/4"
500	500	5.50	500	7.46	0.920	3.35	0.90	3.72	8 - 20	5 - 10	30mm	1"	1"
510	510	5.50	510	8.31	0.92	3.73	1.04	3.58	8 - 20	5 - 10	30mm	1"	1"
700	700	7.22	700	9.84	0.960	3.95	1.00	3.95	15 - 25	8 - 16	30mm	1"	1"
770	780S	7.22	770	9.84	1.188	3.93	0.80	4.90	15 - 30	8 - 16	30mm	1"	1"
780	780S	7.22	780	9.26	1.188	3.69	0.75	4.95	15 - 30	8 - 16	30mm	1"	1"
790	780S	7.22	790	8.46	1.188	3.36	0.59	5.68	15 - 30	8 - 16	30mm	1"	1"
850	800	7.70	850	9.84	1.250	3.41	0.89	3.83	30 - 55	n/a	30mm	n/a	1"
858	858	6.62	858	8.58	0.960	3.41	0.77	4.42	8 - 20	5 - 10	30mm	1"	1"
860	800	7.70	860	11.26	1.250	3.92	1.14	3.44	30 - 55	n/a	30mm	n/a	1"
1190	1190	8.00	1190	9.84	1.438	3.41	0.68	5.01	35 - 60	16 - 30	1-7/16"	1-7/16"	1"

ABOVE DATA COVERS SPEEDS UP TO 25 MPH. FOR HIGHER SPEEDS CONTACT COMET.
COMBINATIONS OF DRIVERS AND DRIVENS CAN BE USED TO ACCOMMODATE SPECIAL APPLICATIONS.

Formulas to determine top speed when all gearing is known:

a) ER ÷ FS = DRJ
b)DRJ ÷ FGR = RAR
c) RAR **x** TC = Ft/Min
d) Ft/Min **x** 0.01136 = CMPH
e) CMPH **x** 0.92 = AMPH

Formulas to determine final gearing when top speed is known:

a) AMPH ÷ 0.92 = CMPH
b)CMPH ÷ 0.01136 = Ft/Min
c) Ft/Min ÷ TC = RAR
d) ER ÷ FS = DRJ
e) DRJ ÷ RAR = FGR : 1

ER = Maximum engine RPM
FS = Full Shift (Hi ratio of selected Torque Converter
DRJ = Driven RPM@Jack Shaft
FGR = Final Gear Ratio (after Torque Converter)
RAR = Rear Axle RPM
TC = Tire Circumference in feet
Ft/Min = Feet per minute
CMPH = Calculated MPH
AMPH = Actual MPH- approximate