INSTALLATION INSTRUCTIONS FOR SNOWBLOWER FOR A BETTER P.T.O. SHAFT & GEARBOX OPERATION

A proper initial installation will give you years of satisfactory service on your equipment. Please read carefully following instructions which have been specially made to help you and make you satisfied of your purchase.

WARNING : **Unfortunately, snowblowers will be faced with forgotten or hidden objects under the snow, such as : chain, tires, stones, pieces of wood, etc... Inspite of all our efforts, machines are not built to resist all those conditions.**

Danger : Too big tractors

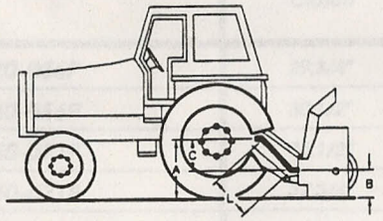
It is dangerous to use a tractor which is too big or too powerful. The tractor will always be able to overload the blower, even if the machine is already at maximum capacity. Tractor being very high, too large angles at P.T.O. universal joints will result, and life of universal joints will be shortened dramatically.

P.T.O. shafts angles

P.T.O. shafts are made to transmit power with angles at universal joints. However, these angles should be kept to a minimum. Larger the angle, shorter the life of P.T.O.. Take for example a snowblower sold for a tractor capacity of **60-75 H.P.**, which would be attached to a **60 H.P.** tractor, operating at maximum capacity (**60 H.P.** continuous).

H.P.	P.T.O. angles	Estimated life in hours
60 @ 540 RPM	5°	450 hours
	10°	195 hours
	15°	90 hours
	20°	40 hours
	25°	20 hours

How to determine P.T.O. angle

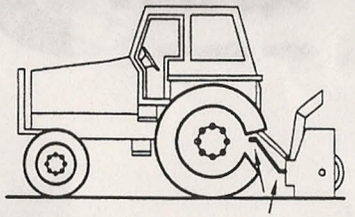


A = P.T.O. height at tractor
B = P.T.O. height at blower
C = A - B
L = Cross center distance in working position

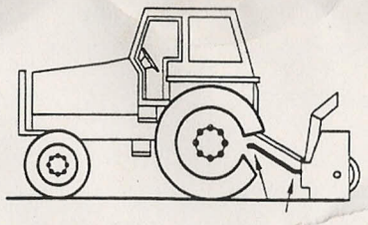
1) Lower blower on ground.
2) Take measures A, B & L
3) Substract B of A (A - B = C)
4) Divide L by C (L ÷ C = F)
5) Compare F Factor in table below to find P.T.O. angle (interpolate, if necessary).

F FACTOR	ANGLE
6	10°
3.75	15°
2.75	20°
2.15	25°
1.75	30°

Previous examples clearly demonstrate that universal joint angle is directly related with life of P.T.O.. In order to reduce angle, it is necessary to increase the distance between snowblower and tractor.



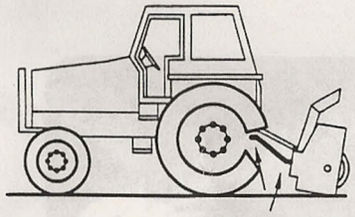
TOO LARGE ANGLES AT P.T.O. JOINTS TO AVOID



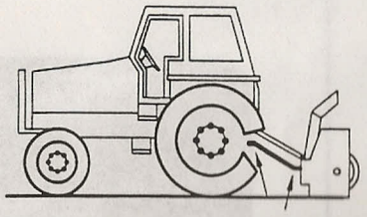
REASONABLE ANGLES AT P.T.O. JOINTS ACCEPTABLE

If it is impossible to increase the distance between snowblower and tractor, in order to maintain a reasonable angle at P.T.O., it is recommended to use a larger size of P.T.O., that is a greater capacity P.T.O. (please refer to your dealer for more details).

For snowblowers of 100 H.P., an additional gearbox is also available that can be mounted on existing snowblower gearbox, which increases the input shaft height, reducing angle at P.T.O. joints. This gearbox also has an input speed of 1000 R.P.M., which greatly increases P.T.O. capacity.



NON–EQUAL ANGLES AT P.T.O. JOINTS TO AVOID



EQUAL ANGLES AT P.T.O. JOINTS RECOMMENDED

Angles at each end of P.T.O.

A popular habit is to change snowblower angle in order to obtain a better scraping effect. This practice can become harmful to the P.T.O., angle at each end being unequal. There will be a fan speed variation as well as a drastic increase of load on cross and bearings. **To avoid**. It is recommended to keep tractor P.T.O. shaft and snowblower input shaft always parallel.