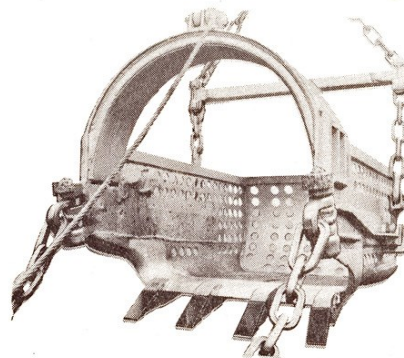
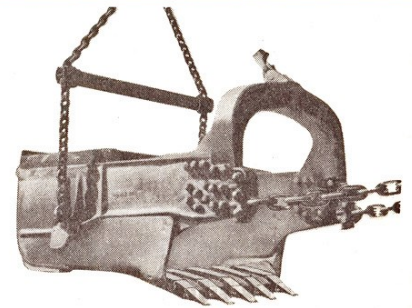




H&L Adapter type teeth
in Esco Dragline bucket



H&L Weld-on type teeth
in plate lip dragline bucket



H&L Stake type teeth
in B/E Dragline bucket

CAST and PLATE LIP DRAGLINE BUCKETS

H&L adapters and shanks are made to fit the same connection as the factory tooth being replaced. This section specifies the recommended H&L adaptation for each manufacturer of dragline equipment. In event a recommendation is not given, specify the make, model, capacity of bucket and the factory number of the tooth to be replaced. A factory tooth sample or a dimensional drawing of the tooth con-

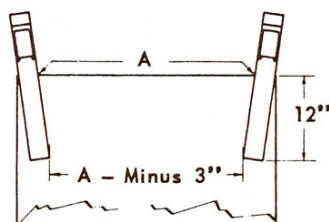
nection submitted with order will be helpful in the supply of the correct H&L adaptation.

Weld-on type shanks are also highly recommended for replacement on both cast lip and plate lip dragline buckets. The bucket lip should be measured by an H&L Tooth-O-Matic Instrument. Turn page for diagram and instructions in the use of this device.

CORNER SHANK and SIDECUTTER INSTALLATION

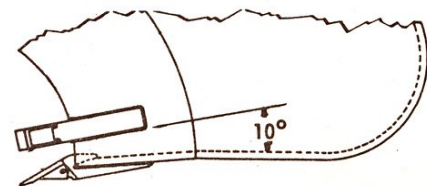
Corner Shank Mounting Instructions

When shanks are welded on a dragline bucket, the outside shanks should be placed as close as possible to the corners with the point toed out to give clearance for the corners of the bucket. The proper amount of toe out for the point can be made by moving the back end of each shank $1\frac{1}{2}$ inches toward to centerline of the bucket. (Refer to illustration below.) Corner teeth at this position also helps the bucket to hang to the bank when sloping.



Sidecutter Mounting Instructions

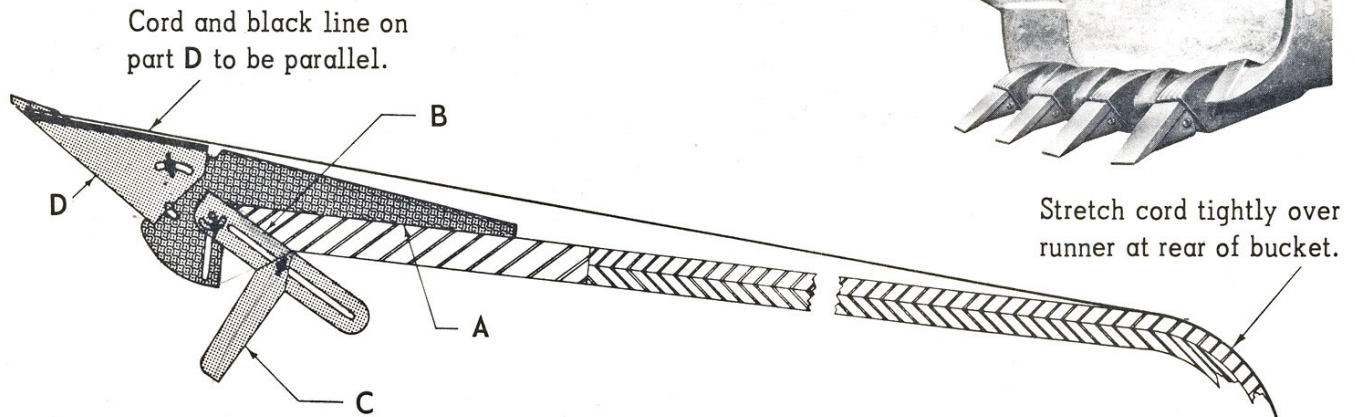
When sidecutters are needed to give added clearance for the bucket connection, they should be welded (or bolted) to the sides with the edge of the sidecutter at approximately 10 degrees with the bottom of the bucket. (Refer to diagram.)



TOOTH-O-MATIC INSTRUCTIONS

DRAGLINE

HOW TO USE the H&L TOOTH-O-MATIC
to MEASURE DRAGLINE BUCKET for WELD-ON SHANKS

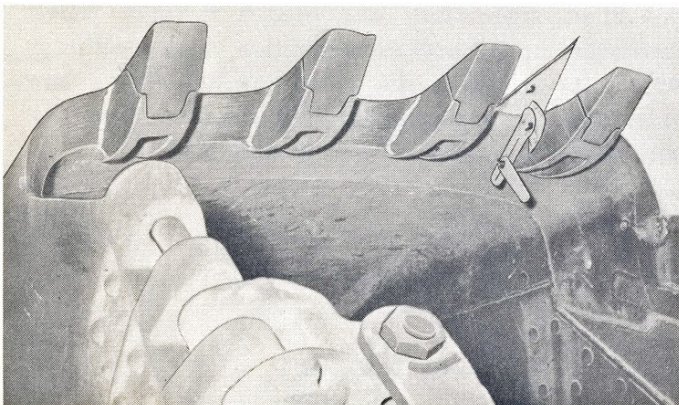


- A With dragline bucket bottom side up, place Tooth-O-Matic surface A along bottom of lip between teeth.
- B Loosen and adjust part B to fit bevel of bucket lip and tighten wing-nut.
- C Adjust and secure pointer C to indicate length of bevel.
- D Stretch cord of Tooth-O-Matic tightly over bucket runner, as shown in illustration and photo. Adjust part D so that the cord is in line (parallel) with black stripe on part D and tighten wing-nut.

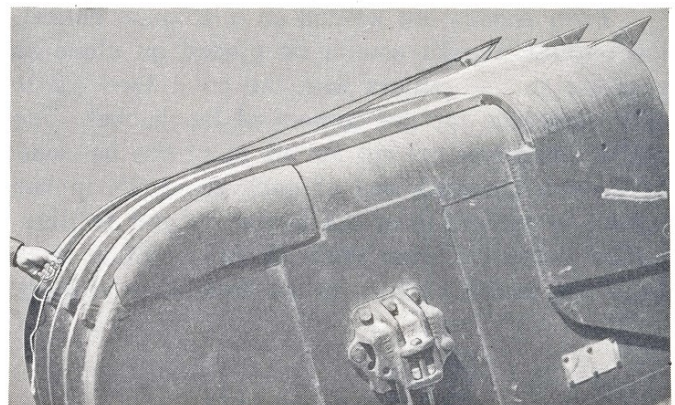
Remove Tooth-O-Matic instrument and trace all outline edges on a piece of blank paper.

Identify the make, model and cubic yard capacity of the bucket on the paper.

Forward this information to the H&L Tooth Company. H&L will make the proper allowances for clearance and pitch of point. Specify overall width of bucket lip and quantity of shanks required.



The H&L Tooth-O-Matic is shown above adjusted to fit the lip of the dragline bucket. Bucket horns must be trimmed, as indicated by white lines in the photo, to a smooth surface for proper installation of weld-on type H&L shanks.



Cord is shown above stretched tightly from Tooth-O-Matic along the runner to the rear of the dragline bucket. Be sure the cord is in line (parallel) with the black stripe painted on part D of the measuring instrument.