INSTALLATION & OPERATING INSTRUCTIONS.

For V3000 & V1000 Chain Meter

INSTALLATION

Before starting any dismantling of the winch, check that the distance between the underside of the gypsy and the top side of the deck bearing is $\frac{1}{4}$" or more. 3/16" is the absolute minimum space that is required.

If the gap is less than 3/16" then the unit has not been installed according to the installation instructions for the winch which requires a $\frac{1}{4}$" gap, and will necessitate its removal from the deck and an equivalent amount removed from the deck thickness packer to allow the $\frac{1}{4}$" measurement to be correct on reassembly.

To fit this attachment it is necessary to remove the warping drum, gypsy, clutches and the stripper from the navel pipe; to expose the top face of the deck bearing. This is accomplished by removing 2 hex headed bolts that hold the stripper bar in place on the navel pipe and lever the stripper out of engagement with the gypsy. The counter-sunk head screw and flat washer which are found underneath the handles in the centre of the clutch nut, can now be removed and the clutch nut screwed off allowing the warping drum, key, top clutch, spring, gypsy and the 4 balls & rubber pads to be slid off.

The remaining bottom clutch can now be removed with the use of 11/32 dia. pin punch, this pin goes through the clutch & shaft , it can be removed from either side to the clutch.

The pin is normally quite tight and the use of a proper pin punch is recommended. The ideal size of punch is 11/32 dia. x $3\frac{1}{4}$ working length or longer. Remove this pin with the punch using a $1\frac{1}{2}$ or 2lb engineers hammer, delivering solid squarely placed blows. In the absense of an engineers hammer a heavy claw hammer may do the job.

On some models of winch there are 2 - $\frac{3}{8}$ dia pins used, this is quite normal, when reassembling, the join of the 2 pins should be in the middle of the shaft.

Once the pins are removed the clutch can be worked off the shaft normally by hand by using a backwards and forwards screwing motion.

Should the winch require complete removal to correct the $\frac{1}{4}$" dimension between gypsy & deck bearing mentioned earlier this can be accomplished by undoing the nuts on the underside of the deck, 5 in the case of the V1000 and 6 for the V3000. With a little tap from a block of wood on the top of the main shaft the winch will slide out from the bottom, if this is done carefully the seal of the deck bearing on the deck may not be disturbed, if it is of course resealing is essential.

The deck bearing of all V1000 and V3000 windlasses is premachined to accomodate the chain meter attachment, it is fitted as shown in the accompaning illustration using the 3 self tapping screws provided, a light smear of grease on all rubbing parts is essential before finally screwing into place. a small quantity of the correct grease is provided in the enclosed plastic bag, the grease being black in colour.

On models produced prior to 1979 it is necessary to drill a 3/16" dia hole 7/16" deep in the underside of the gypsy on a $2\frac{7}{8}$ radius from the centre, this dimension will bring the hole within the area of any one of the ratchet teeth.

On models produced after this date the hole is predrilled. Drive the 3/16" dia. tension pin into this hole as far as it will go.

The above dimensions need to be accuratley maintained, if it is beyond the owners capabilities to perform this operation most engineers would do the job while you wait.

Having finally screwed the meter attachment into place it should be rotated by hand so as the indicator pointer does one full revolution, the pointer finger may need a slight bend up or down to make sure it clears everything in a full revolution. The ideal distance between pointer finger and deck bearing is 1/16". At this point the above deck fittings previously removed can now be replaced by reversing the dismantling proceedure.

This is a good opportunity to liberally grease all mating parts.

When refitting the gypsy the pin previoulsy inserted in the under face of this should be engaged in the slot of the protruding arm of the meter attachment.

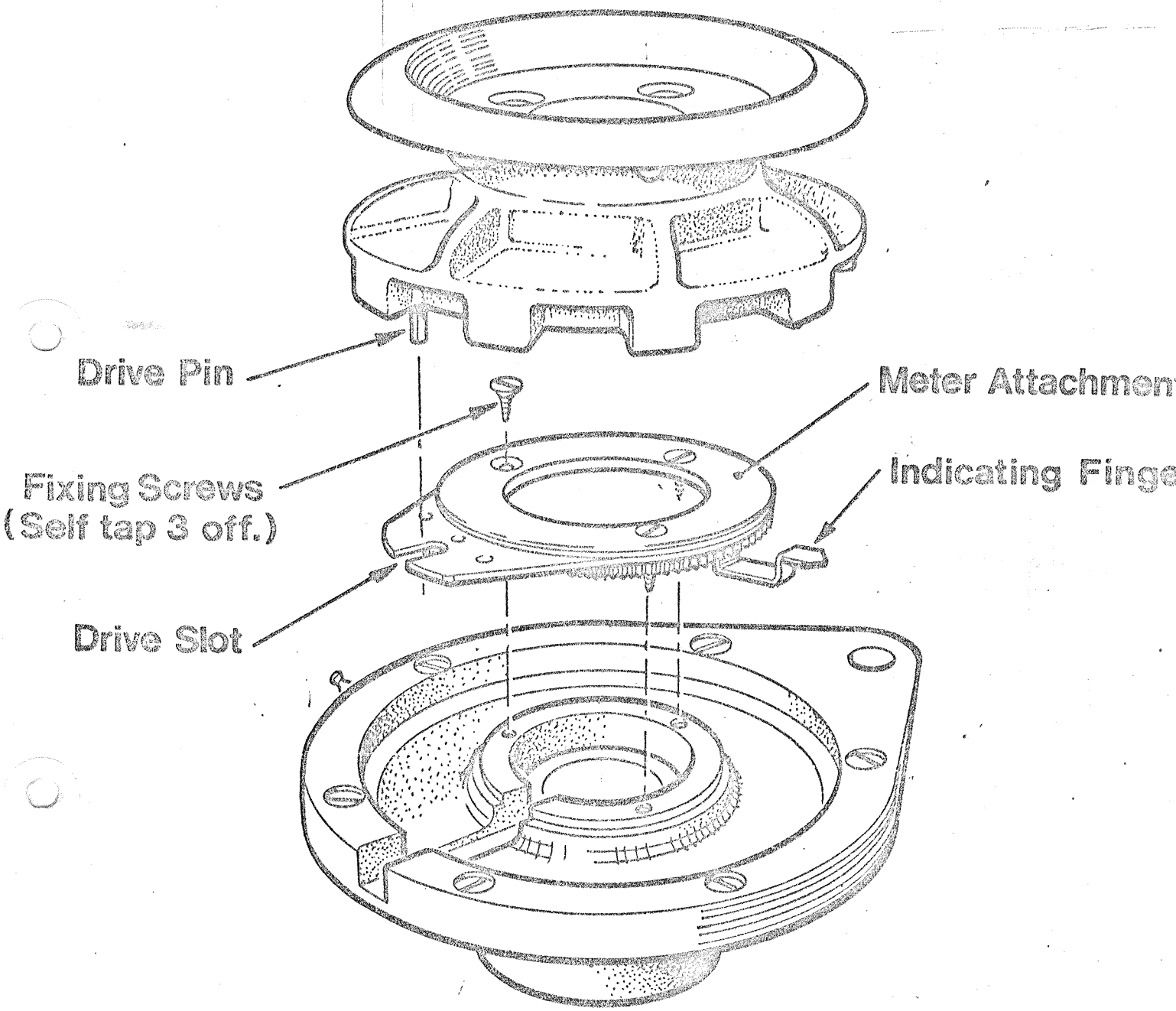
OPERATION.

The protruding pointer indicates the appox.length of chain that has passed over the gypsy. The distance between each of the 6 deck bolts equally spaced around the outside edge of the deck bearing is equivalent to 5 fathoms of chain passing over the gypsy; therefore one complete revolution of the indicator needle equals 30 fathoms of chain over the gypsy.

The starting point of the indicating pointer is set by running the winch with the chain held out of engagement with the gypsy until a point that is convenient to the operator is reached, the chain replaced on the gypsy and from then on the pointer will retur to that position when the anchor is back in its position on the bow.

MAINTENANCE

An occasional squirt of CRC or similar twice per year directed under the gypsy is all that is necessary.



METHOD OF FIXING
METER ATTACHMENT
ONTO DECK BEARING