KNOWLEDGE BASE

Article Type: **Instructions**

Cable Reel Servicing and Assembling Instructions for; PTS and Trac-A-Rack Cars

Description:

Instructions on "How to" properly service and assemble Cable Reel on a Columbia Machine PTS and Trac-A-Rack Car. Reference drawing # D-465.2.122, 382.710.1

WARNING

Never work on, clean or service this unit, control panel or any machine or open or remove any protective cover, guard, grate, door, or maintenance panel until the power or energy sources has been turned off, locked out / tagged out, and all moving parts have come to a complete stop and or blocked to prevent movement. Machinery is dangerous – avoid personal injury and or death by following manufacture, Local, and OHSA safety procedures. Contact Columbia Machine for safety decals, guards, horns and beacons.

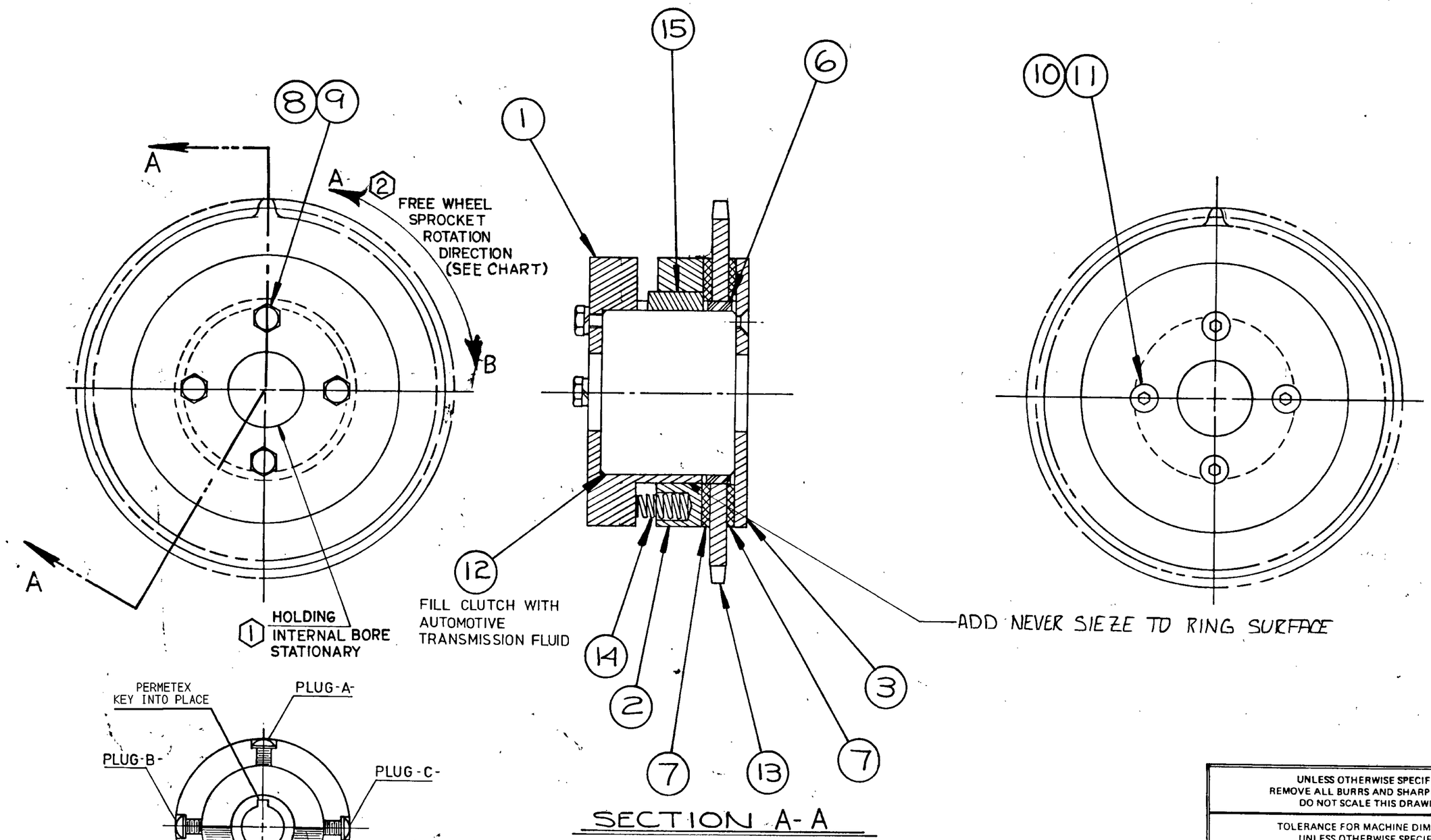
THE TOTAL SOLUTION Columbia

PTS AND TRAC-A-RACK CABLE REEL CLUTCH ASSEMBLY USED ON HYDRAULIC CARS.

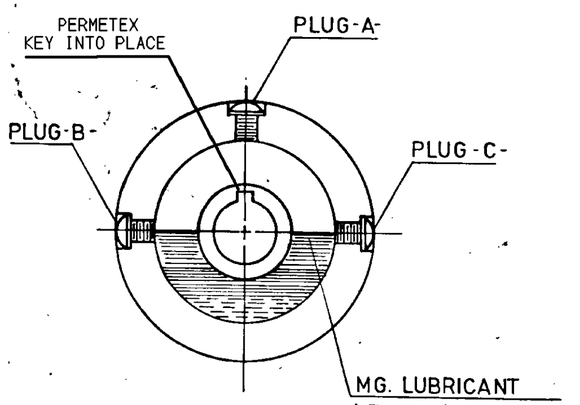
The clutch assembly is the same on both PTS and Trac-a-Rac car system. The difference is free-wheeling direction along with direction when mounted on shaft (sprocket in or out). On PTS car the sprocket is closest to the cable drum. Another way to look at it, the countersunk Alan bolts are facing cable reel. On Trac-a-Rac car the sprocket is closer to the outside of the car. Another way to look at this install is the standard hex head bolts are facing the cable reel.

Here are other points of interest when servicing or assembling cable reel clutch assembly.

- We will start with the clutch itself. Notice in middle of the keyway a small hole. Using RTV sealant, apply a small bead to the keyway groove and press key fully into keyway groove. This will seal unit so oil doesn't leak out, when installed.
- Orient the clutch so the three plug screws are located at A,B,C position.
- Remove plug A, use this hole to fill clutch with ATF (automatic transmission fluid).
- Remove either B or C plug for drainage/fill point.
- Once filled with oil, reinstall both plugs tightly.
- Figure out the free direction of clutch for your car. PTS car will free wheel counter clockwise and Trac-A-Rac car types will free wheel clockwise.
- Install the end plate with the counter sunk bolts and tighten.
- If reusing friction parts inspect for wear.
- When reusing friction parts, use 100 grit sandpaper to remove glazing and rough up friction areas.
- Next, make sure they are clean and oil free. Using brake clean or something like this will assure clean and oil free parts.
- Refer to print number 465.2.122 below for more details. Also fine the cable drum drag kit information.



SECTION A-A



NOTE: INNER OVER RUNNING CLUTCH ASSEMBLY ORIENTATION SEE NOTES (1) AND (2)

SYSTEM	ASS'Y NUMBERS SERIES	FREE WHEEL DIRECTION
P.T.S	465.X.X	A
C.W TAR	621.X.X	B
PLAT TAR	472.X.X	B

REV.	ZONE	CHANGE/D.C.N.	DATE	BY	M/F
E		DCN #20010497	5-15-01	RES	
D		DCN 970871	10-28 97	D.M	
C		DCN 930418	6-30	RC	W
B		DCN 910071	6-24 91	LCL	M
A		DCN 870084	3-26 87	LCL	M

UNLESS OTHERWISE SPECIFIED:
REMOVE ALL BURRS AND SHARP CORNERS
DO NOT SCALE THIS DRAWING.

TOLERANCE FOR MACHINE DIMENSIONS UNLESS OTHERWISE SPECIFIED.

ANGULAR	DECIMAL	FRACTIONAL
± 1°	± .010	± 1/32"

Columbia MACHINE, INC.
VANCOUVER, WASHINGTON

CLUTCH ASS'Y. UPPER TRANSPORTER

DRAWN BY: Jay F. DATE: 10-18-77

APPROVED BY: SCALE: 1/2" = 0'-1"

C-465-2-122 SHT. 1 OF 3

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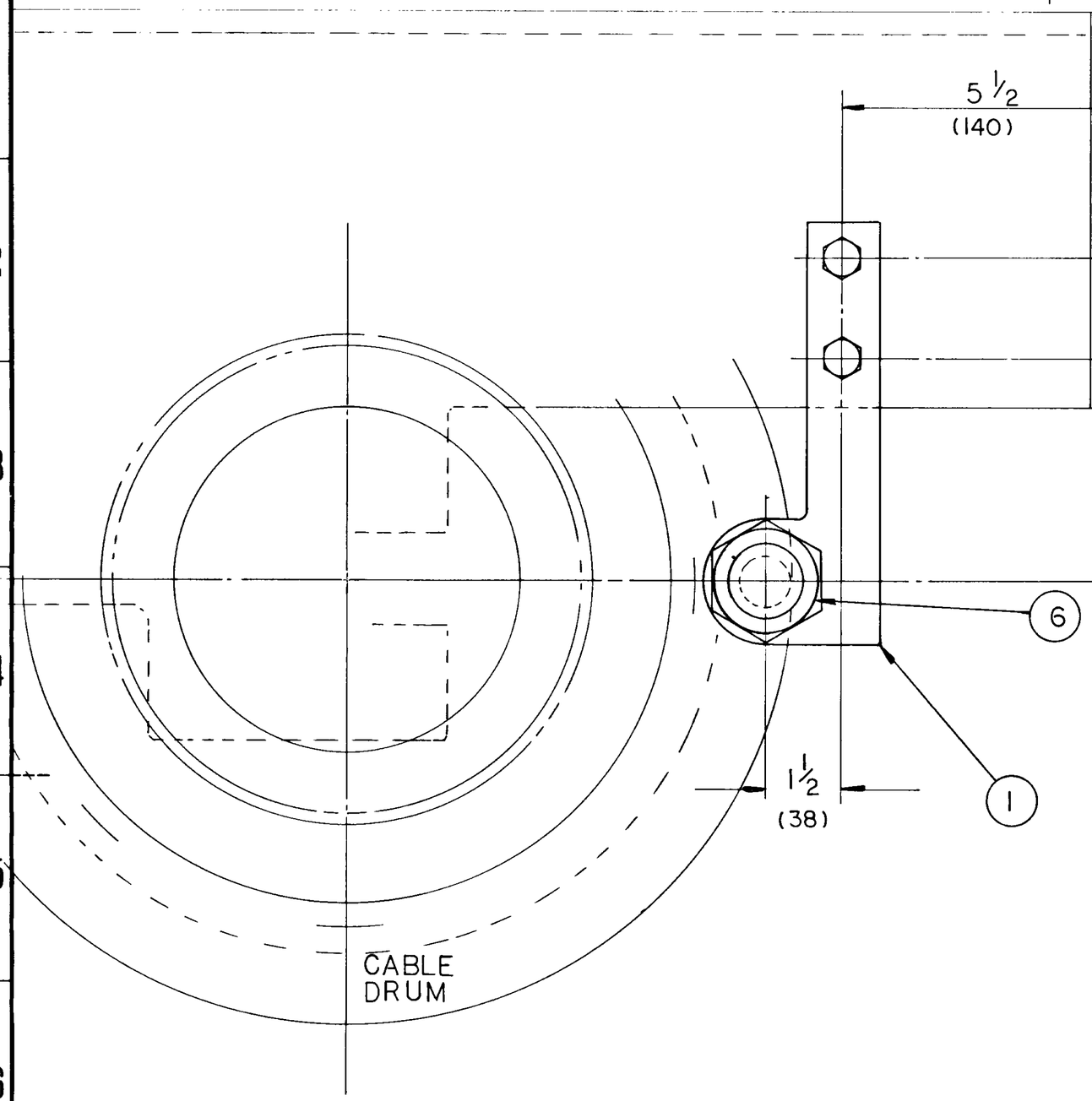
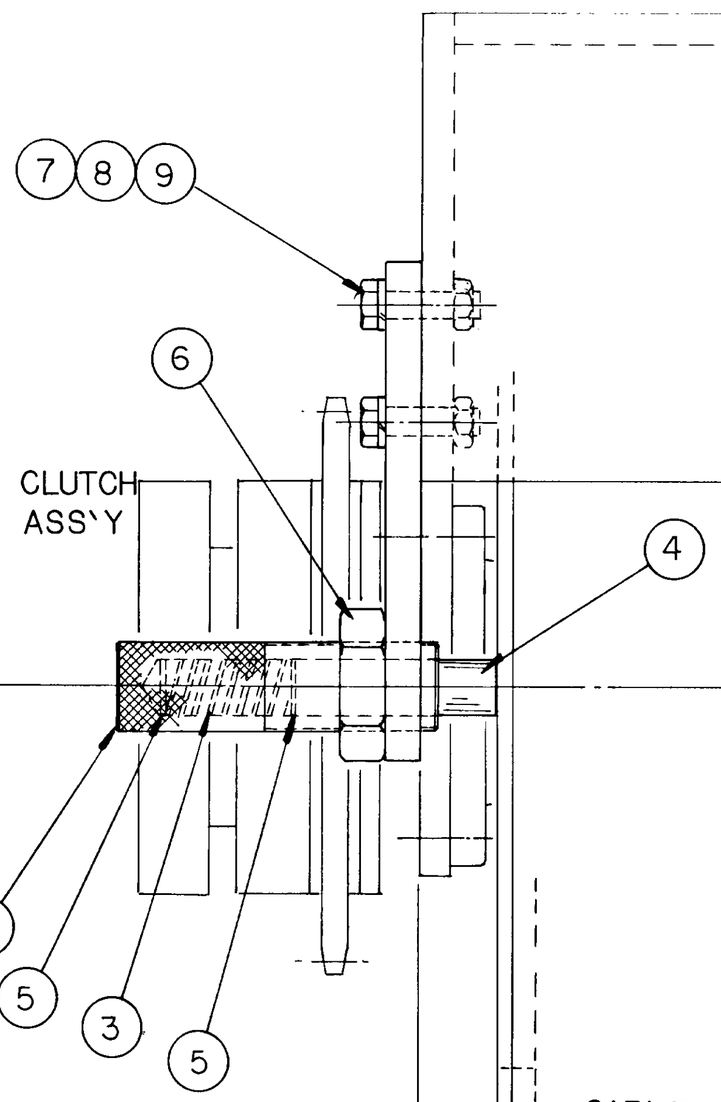
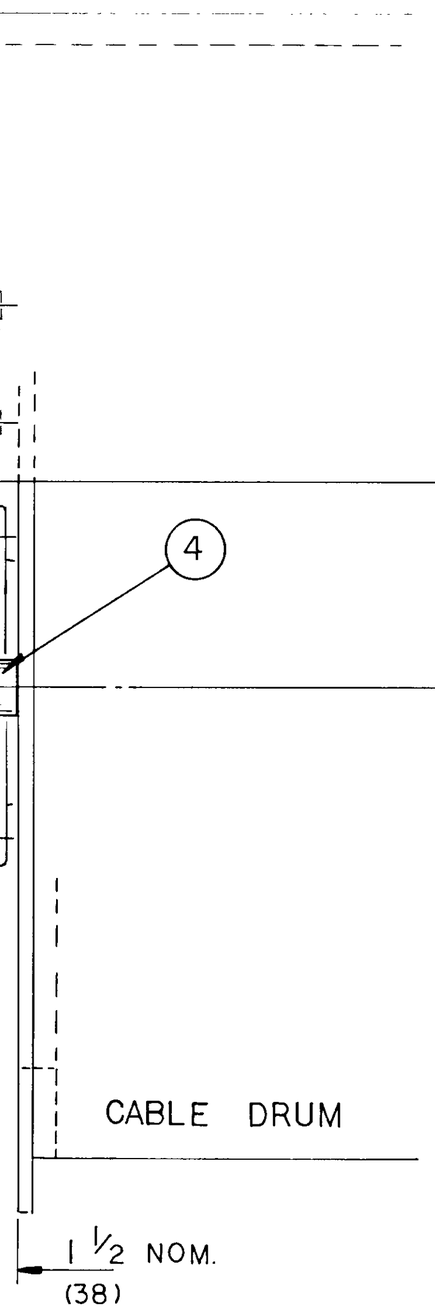




VIEW AT L/H
REAR OF CAR



NOTES:

1. Components to be subassembled prior to shipping DO NOT paint inside of spring holder.
2. Prior to installation cable drum shaft must be secure in bearings, use Loctite provided to reset setscrews on shaft. Drum must be secure on shaft, use Loctite provided to reset setscrews on shaft also. Drag spring will exert a side thrust on drum and could cause drum to shift sideways if too much pressure is exerted on drum due to misadjustment.
3. Hand adjust spring holder to allow plug to only exert enough drag on drum rim to limit overrun of cable during payout. Cable should remain snug on drum at furthest travel distance. DO NOT wrench tighten or over tighten spring holder to exert excessive side pressure on drum. This could damage drum or electrical wiring inside.
4. Spring tension can be increased beyond the limit provided by the threads on the spring holder by inserting the additional spring cups provided (part number X.2003.11) under the spring. Only two (2) should be placed, one on each side of spring at initial installation.
5. Two (2) 11/16 diameter holes (18mm) are required to be drilled in frame for mounting.

REV.	ZONE	CHANGE/D.C.N.	DATE	BY	M/F

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TOLERANCE FOR MACHINE DIMENSIONS
UNLESS OTHERWISE SPECIFIED

ANGULAR	DECIMAL	FRACTIONAL
± 1°	± .010	± 1/32"

Columbia MACHINE, INC.
VANCOUVER, WASHINGTON

CABLE DRUM DRAG KIT

DRAWN BY: J.FENANDER	DATE: 5-2-92
APPROVED BY:	SCALE: 1/2
C- 382.710.1	SHT 1 OF 1