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Tractor Maintenance Repair and Restoration

Tractor Test and Power Museum, The Lester F.  
Larsen

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1-1-2009

## Co-op E3 Cockshutt 30 Restoration

Tractor Museum

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date 12-15-08

project COOP E3

page 1

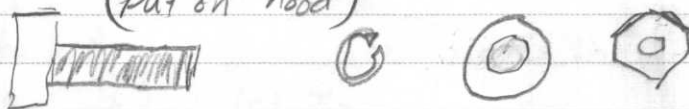
### Plan

Engine is stuck. Pop the head to see condition of valves cylinders, rods.

Remove hood mid section

- 2 bolt heads
- 4 bolts  $\frac{3}{8} \times \frac{3}{4}$
- (missing) bolts
- 4 locks  $\frac{3}{8}$
- 4  $\frac{3}{8}$  nuts

9/16 wrench to loosen  
(put on hood)



9/16 wrench to loosen

Img  
320  
321

- take off button (Drawer 1.2)
- put hood on (bench #1)
- Remove Stack

322  
323  
324

hood removed

Front Lt head light  
Front Right head light

325  
326

5 wires from Instrument panel already disconnected

327

Disconnect Gas line from carburetor 9/16 wrench

Remove Thermostat line

329

Remove T-5019 Water outlet from Thermostat casting  
to top radiator hose 2- $\frac{3}{8}$  x 1 bolts

330

Remove clamp (put bolts back in)  
straight (+ thermostat casting) 2- $\frac{3}{8}$  locks  
screw driver (water outlet + clamp in drawer 1.2)

332

Remove air line from carburetor

333

- clamp missing

Remove carburetor (2 bolts  $\frac{5}{16}$  x 1 in  
2  $\frac{5}{16}$  locks  
put on carb  
put in drawer 1.2)

334  
342

task list: Need 3- $\frac{3}{8}$  x  $\frac{3}{4}$  bolts 3- $\frac{3}{8}$  locks + 4- $\frac{3}{8}$  washers  
Need 1-clamp for air line to carb

date 12-15-08

project COOPE3

page 2

Removing head for evaluation

Remove thermostate casting 335

2- 13/16 nuts 336

1- nut came off

1- stud came out 5.5 inch x 1/2 337

( put stud back  
in block  
put nut on block  
in stud  
Put in drawer 1.2)

disconnect water in 344

let pipe 345

Remove exhaust manifold

8- brass nuts 5/8 338

8- 1/2 locks 339

( put all in Drawer ) 341

1.3 343

Remove T-5378 of Cooling system water inlet pipe 346

1- bolt 1/2 x 3 3/4 gasket present 347

1- 1/2 washer

Remove Valve Cover (put on #1 bench) 348

9/16 wrench 2 nuts

( 2-nuts 9/16 ) 349

( nylon gasket  
put in drawer 1.4)

Remove valve assembly 350

2 nuts on studs 9/16 (outside) 4 3/8 Flats 351

2 bolts - 3/8 (inside)

4 rocker arm bracket spring clip

( put in drawer 1.4)

task list:

date 12-15-08

project COOP-E.3

page 3

### Removing valve assembly

Remove 8 push rods  $\frac{3}{16}$   $\frac{5}{16}$   $\frac{5}{8}$  (Put in drawer 1.4) 352  
353

Remove spark plug wires

Remove oil line 2 brass nuts  $\frac{7}{16}$  wrench 354

### Removing cylinder head

Remove 14 -  $\frac{13}{16}$  nuts

4 studs came out  $5 \times \frac{3}{8}$

10 nuts came off  $\frac{13}{16}$  355

Remove Fan assembly

4 blade fan

356

4 bolts  $\frac{5}{16}$

4 locks  $\frac{5}{16}$

1 spacer  $1 \frac{1}{2} \times 3$



1 pulley

$4 \frac{1}{2}$

(Put in drawer 1.4)

Disconnect cylinder head

358

from generator

$\frac{9}{16}$  wrench

359

$\frac{3}{8} \times \frac{3}{4}$  bolt

360

$\frac{3}{8}$  nut

lock  
 $\frac{3}{8}$  washer

(Put back on bracket)  
disconnected

361

Remove cylinder head

372

Remove head gasket (put on bench #1)

374

task list:

✓ Picked up tools, ✓ rolled up chords ✓ swept floor