

Undercarriage "Cheat Sheet" notes
(SW Schmauch June 2011)
Area 4 (MARC) Final Judging Sheet

Deduction Codes:

Authenticity (1/2)

(IA) Incorrect Assembly
(IF) Incorrect Finish
(IP) Incorrect Part/Material
(PM) Parts Missing
(RP) Reproduction Part

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(WO) Working Order

Undercarriage sections A, B, C, & D--350 points (35 points)

A) "Walk Around" (50 points total)

Front Bumper Arms

BOP--M31 ends square (4 pts ea)
M31—EOP ends round
fasteners—hex & fine thread (2 or 3 showing);black (1pt ea)

Front Fender Brackets & fasteners (10 pts)

1928's forged w/raised center bolt at frame (4 pts ea)
E28—M28 forged w/square end at fender
M28—L29 round end
E30 some were forged
1929 some were stamped steel
1930-31 were stamped steel
L31 w/raised center bolt
Fasteners—black paint (2 pts total)

Rear Bumper Arms

BOP--M31 ends square (3 pts ea)
M31—EOP ends round
• ck for Cd plate fastener to body underside (fasteners) (1 pt ea)

Rear Bumper Cross brace (1.5 pts correct brace; 0.5 pt correct fasteners)

E28— "T" shaped w/ 2 bolts
E28—L29 Tubular w/ 3 bolts
E30—M30 steel stamping w/ 3 bolts (special type brace!)
M30—7/31 steel stamping w/ 2 bolts
7/31—EOP steel stamping w/raised center bolt
30-31 types with FULL rear bumper has a spacer @ each end
Fasteners: domed BOP—M30; hex thereafter; bolt heads face inward

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ct.

A) "Walk Around" (50 points total) (continued)

Rear Fender Brackets & Fasteners (10 pts)

- 1928's forged w/raised center bolt at frame (4 pts ea)
- E28—M28 forged w/square outer end & 1/4" raised boss at fender
- M28—L29 forged, round end w/out 1/4" raised boss
- E30—M30 some were forged
- 1/29—EOP some were stamped steel
- Fasteners: unfinished (2 pts each bracket)

General Appearance (10 pts)

- Vehicle "leaning?" (a subjective Quality issue only!)

100

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B) FRONT Undercarriage (100 points total)

Front Axle (10 pts)

BOP—E28 Large “Ford” script
E28—M29 Small “Ford” script
M29—EOP none

- ck axle spring perch area for damage/wear

Spring Perches & Nuts (10 pts)

No “changes” information in “Stds”...
Match?

- ck for shackle bars too tight against spring perch (IA)
- ck for repro nuts!! (1 pt deduction ea)

King pins, thrust bearing, shims & assembly (10 pts)

- ck for repros—the actuating arms do not fit inside k. pin hole!!
- ck for correct assembly of thrust bearing and for shims (IA)

Front Cross Member (of frame) (10 pts)

BOP—12/27 3 piece riveted; solid mount to engine
E28— 11/28 solid mount to engine
11/28—9/29 “Flat” radiator mount pads
12/29—EOP radiator overflow drain hole (“feel” from bottom side)
9/29— EOP “Depressed” radiator mount pads

- ck center/bottom area for rust pits/damage

Front Spring & “U” Bolt Assembly (10 pts)

All have **10** leaves with clipped corners (has **6** leaves below clip)

- ck ends of spring leaves for wear
BOP—2/30 “U” bolt assembly is “square”
2/30—EOP “U” bolt assembly is “round”
BOP—8/29 spring bolt plate has no bevel
8/29—EOP spring bolt plate “beveled” ears

Front Spring Clips (5 points)

BOP—E31 square bolts & nuts
E31—EOP rivets

- ck for repros!

B) FRONT Undercarriage (100 points total) (continued)

Spindle Arms (5 pts)

- BOP—E28 no grease flange (first 1000 vehicles)
- E28—L29 thin grease flange
- E30—EOP thick grease flange

Front Radius Rod & Assembly Hardware (10 points)

Front Radius Rod (6 of total 10 pts)

- BOP—E28 smaller, w/ distinct taper about ½ way
- E28—M30 “U” or “cupped” design near ball
- M30—EOP “T” shaped design near ball

Assembly Hardware (4 of total 10 pts)

- ck for repro parts
- ck for loose or over-tight nuts (oversize nuts!!)
- ck for cotter keys/unfinished hardware

Tie Rod (5 points)

- ck for straightness

Tie Rod ends & grease fittings (5 points)

- E28—9/30 fittings threaded; face Front of vehicle
- 9/30—EOP fittings press fit; face Rear of vehicle

Pitman Arm (5 points)

- BOP—E28 small square hole; no grease flange; tapered
- E28—E29 regular 15/16” square hole; thin flange; tapered
- L28—M29 thick flange; tapered
- M29—EOP thick flange; no taper—heavy construction

Drag Link (10 points)

- BOP—10/28 Pitman arm enters near threaded plug end
- 10/28—EOP Pitman arm enters near grease zerck!

- ck for straightness
- ck for correct installation!!
- ck for any “wear area” where tie rod crosses drag link

Flywheel Housing (5 points) (green)

- ck for large cotter key in hole in bottom
- ck for inspection plate (black)
- ck for “external ribs”—these are service replacements—30’s & 40’s

Bell Housing (5 points) (green)

- BOP—L28 multiple disc type (shorter in length)
- L28—EOP standard type
- BOP—L28 clutch release arm is green & the shaft is Keyed
- L28—EOP clutch release arm is green & the shaft is Pinned
- ck for original clutch shaft—they are “flush” with the casing!

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C) MID Undercarriage (100 points)**Running board brackets (15 points)**

BOP—3/29 forged
 3/29—9/31 stamped
 7/31—EOP stamped with upper reinforced rivet hole (on fronts ONLY)

Transmission Case & Gear Shift Housing (15 points)**Transmission Case (10 of 15 pts)**

BOP—E28 has a WIDE Collar Boss at reverse idler shaft location
 BOP—11/29 1/4" thick retainer bar secures reverse idler shaft
 11/29—EOP 1/8" thick retainer bar secures reverse idler shaft

Gear Shift Housing (5 of 15 pts)

BOP—6/28 NO emergency brake mount
 6/28—7/29 emergency brake mount in front
 7/29—EOP emergency brake mount on passenger side

Battery Support Assembly & Hardware (15 points)**Battery Box (5 of 15 pts)**

BOP—8/28 Forged; square plate; 1 drain hole
 L28—M29 Stamped; square plate; 1 drain hole
 M29—L30 Stamped; square plate; 2 drain holes
 L30—EOP Stamped; square plate w/clipped corners; 2 drain holes

Battery Cover ("Hold-down") (4 of 15 pts)

BOP—8/28 an "open frame" w/canted sides; use 2 Forged corners
 9/28—12/29 same, but has extra layer of metal surrounding 2 holes
 12/29—EOP NO cover; used 2 "L" shape stamped steel corners

Battery Cover Hardware (1 of 15 pts)

*ck for (oversize) Cd/Zn hex nuts securing cover to box (1 pt)
(this is best observed from the "front area" of the box!!)

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C) MID Undercarriage (100 points) (Continued)

U joint housing cover (15 points)

- BOP—E28 2 “sockets” & “T” ext. lug (for 2 pc brake cross shaft)
- E28—M28 2 “sockets” & ½ round extension lug (on top ½)
- M28—6/29 NO “sockets”; lug extension
- 6/29—EOP NO “sockets”; NO lug extension (all changes—13 pts)
- ck for 2 paper gaskets (2 pts)

Speedo Gear (10 points) (unfinished or black)

- BOP—3/28 angled “10-37” inside a recessed circle
- 3/28—E29 angled “10-37”
- L28—E29 angled “11-39”
- All 1929 angled “9-34” (speedo gear is 8 points)
- M29—M30 “9-34”
- M30—EOP “9-34” w/ “19” under the 9-34
- 1929-31 4:11 gear ratio was optional; “9-37” w/ “21” under the 9-37

Speedo Hardware (2pts) (see chart on p. 4-11)

Bolts raven; lock washers unfinished; paper gasket

Body Bolts (10 points) (Refer to Chart on p. 4-9)

Visible from underside:

All bolts are black, fine threads

All hex nuts are raven

All lock washers are Cd plated

Many vehicles also have flat washers in back end positions...

Body Finish Underside (10 points—all items 2 pts ea)

- ck floor pans—original have “x” pattern reinforcement w/ round ends
- ck for “waffle pattern” on floor pan rivets
- ck for dull black wood blocks, except front 28-29 body color
- ck for rubber pads between wood blocks and frame
- ck for rust pits or damage; entire underside is body color

Chassis Component Finishes (paint & plating) (10 points)

Refer to specific finishes on Chart on p.4-11

Most parts are Black

Most fasteners (nuts, bolts, l. washers) are Unfinished

Some nuts are Raven or Black—esp. after M30; others are Unfinished
(Subjective IF issue; possibly RP or CC issue...)

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D) REAR Undercarriage (100 points total)

Rear Spring, Spring Clips, Bars, & Hardware (20 points)

Rear Spring (10 pts)

7 + dummy leaf on Rdsters; 8 on Coupe-Phae-Vicky-A400; 10 on sedans

* ck for coarse thread center bolt with thick square nut—original (2 pts)

* ck for wear at end of lower spring leaves (4 pts—CC)

Spring Clips (4 pts)

- ck for correct & matching; info sometimes stamped on the top of clip
- ck for “excess clearance” below main (bottom) spring—a clue for (IP)
- Square bolts with square nuts BOP—E31; rivets used thereafter

Torque Tube (20 points)

BOP—M28 10” straight + 18” short taper at speedo gear end

BOP—EOP tapered entire length—“smoothest” texture of all types

3/28—EOP Short taper (14”)

- ck for safety wire—everything was Black (4 pts)
- ck for excess rust pits (2 pts)

Rear Radius Rods (20 points)

Radius Rods (16 pts)

BOP—5/28 “L” shape Forged end; NO brake return brackets

6/28—5/30 “horizontal C” shape Forged end at backing plate

4/30—EOP Stamped steel bar end

Brake Return Spring Brackets on Radius Rods (4 pts)

BOP—E28 none (w/integral parking brake system)

1928 Forged brackets

1929 Forged or Stamped brackets

1930-31 Stamped steel brackets

Axle Housing & Spring Perch Ball (20 points)

Axle Housings (16 pts)

BOP—12/27 (first 1000 cars) NO weld seam

E28—3/29 weld seam Forward

11/28—EOP weld seam “UP”

3/29—3/30 weld seam “DOWN”

D) REAR Undercarriage (100 points total) (continued)

Spring Perch Ball (4 pts)

- BOP—E30 Ball integral w/ housing
- E30—EOP Ball press fit into housing

Differential Housing (20 points)

Banjo (16 pts)

- BOP—E29 NO support “gussets”
- E29—EOP “gussets” added to top & bottom

Oil Plug (4 pts)

- BOP—M30 Oil FILLER plug centered
- M30—EOP Oil FILLER plug OFF- center
- Unfinished or Raven; square hole; some 1928’s have “slot”