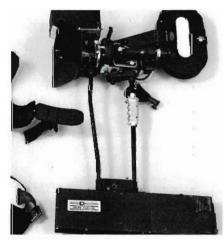
Committee of 37 Defines Model IV

Thirty seven operators from around the world responded to our survey on the "Model IV." Many of the items, currently available as accessories from Cinema Products and others, were deemed essential to the next incarnation of the Steadicam. Other suggestions met with little enthusiasm, and one or two generated widely differing opinions.

Here's how we tabulated the results. We assigned numbers to your responses: from 5 points for "want it" to 1 point for "forget it." Then we divided the total score by the number of responses. The number in parenthesis (following the average score) is the number of responses.



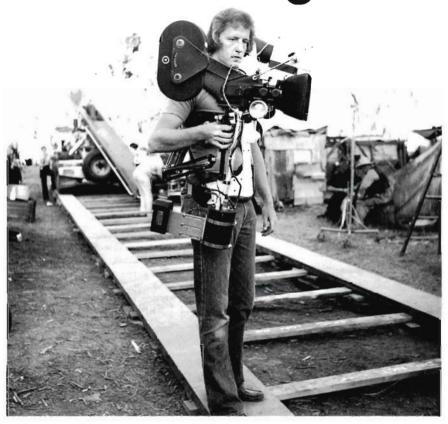
Steadicam IV: The Return?

Many of you included comments with your surveys; we've included them here in our report. Some interesting things are not reflected in

Model IV continued on page 2

Seitz Technical Fire. Details, page 8.

The Iron Age



Steadicam's feature debut.. Old and new tech meet on Bound for Glory.

In the last issue, Garrett Brown described the two year struggle to invent the Steadicam. As the story resumes, he waits at the laboratory to see footage shot with the final prototype. His lab account is paid up, his clothes are in adequate repair by the standards of 1974, and he has certainly eaten within a week. Ed.

Thank you, Ed, for setting the record straight. I mean that sincerely.

Time itself seems to have slowed down... "Walk this way...," I'm following the guy with my dailies, inching past the reception desk, goodbye sunshine, hello high-speed screening room #1, Deluxe General,

Los Angeles. Strange underwater projectionist slowly takes 400 feet of workprint out of the silvery can. It's my demo for the "Brown Stabilizer." It takes several hours to thread it up, during which I review my entire life to date and wonder if an objective observer, such as this extremely objective-looking Hollywood projectionist, will even notice that every shot on the reel is impossible and revolutionary. Nearly twenty different, never-before-seen camera stunts on one reel and not one could have been made with any known combination of dolly and crane. Hey, I

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jumped off a three-foot ledge and you can't see a bump in the shot! I ran down the Art Museum steps and back up again! And he's still threading. I'm shaking. This guy wouldn't notice the Second Coming! I have an appointment with DiGiulio in one hour. The lights dim.

It's fabulous. Even at high speed. The projectionist says, "holy shit, what was that?" and runs it again. He invites his boss to come down. They run it four more times at normal speed in the "Big Room." Lab execs and old guys with silver nitrate eyes invite each other in to see it, and they all tell me what to do with it, but don't call it the brown stabilizer kid, ok?. It's 8:00 a.m.

I feel the great Chiropractor making an Adjustment in my life.

By 6:00 that night, the demo had been screened three times at Cinema Products Corp., and twice at Universal Studios (where Darin McGavin jokingly tried to buy it away from Ed DiGiulio) and several more times back at CP where we finally made a handshake deal. Ed was great. He said he wanted it, and he agreed to pay my royalty and advance an amount equal to all I had spent. I boarded the redeye for Philadelphia and wept over the unstable state of the Brown life as contrasted with the singular happiness of the Day.

To my great surprise, no cameras were stabilized for nearly a year thereafter. My lawyer and Ed's closet Visigoth battled through eleven drafts of the contract, and at last I flew west to sign the deal and to turn over my prototype and my little trove of knowledge about camera stabilization to CP. I earnestly briefed the engineers as to how I thought it worked, spoke of areas I felt needed more attention (many), explained how I felt about fiber-optic viewfinders (queasy), and asked if there were any questions. There were none.

Seven months later, I asked for an update, and returned to LA to see the results of 700K of R&D. Incredibly, I found that hardly anyone had actually worn the thing. I discovered the reason. It was excruciatingly painful. The arm, sheathed in bellowsmaterial, stuck out like a mastodon trunk. The video camera, designed by



The Extinct "Mastodon Trunk" Arm

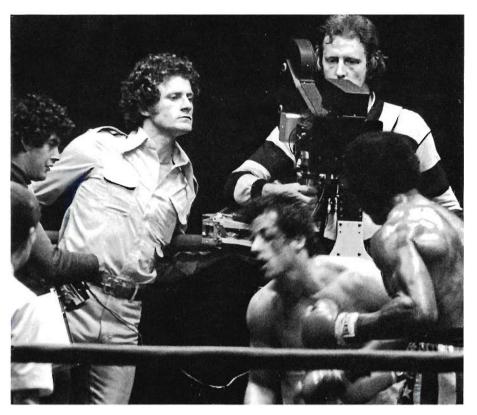
someone who hadn't seen the gimbal, hung down blocking any possibility of panning left. The video monitor clung to the head. The battery rode on a backpack. *And it didn't work!* Merde! The dream was dented. The only consolation was the advance! (Don't leave home without it!)

"To my great surprise, no cameras were stabilized for nearly a year thereafter. My lawyer and Ed's closet Visigoth battled through eleven drafts of the contract..."

What happened may have been that Cinema Products was very busy and very, very hot with the CP 16, and here was this long-haired non-engineer from *Philadelphia* with what they saw as a very crude machine. It wasn't even anodized! They wanted to make it better, but went after so many changes at once,

that the sense of it got lost. To CP's credit they stuck with it and quickly turned it around. John Jurgens was put on the case, and he was able to make better use of the raw data, including the stray revelations from me. Soon things began to come out right. We tested a variety of arm-contraptions, even doing a little shooting for a "Rockford Files," during which DP Lamarr Boren had the distinction to be the first to ask, "Would that thing be any good underwater?"

There was a real job approaching. Haskell Wexler wanted to use the machine to shoot a Keds commercial, and we needed a working arm. I urged that we go ahead and copy the one from my prototype, but add stronger springs and also a vertical hinge to bend it in the middle, which would greatly increase its range of motion. At the same time, Arnold DiGiulio began the computer design for the final arm, incorporating our notion to divide the springs into three wired-together segments in order to soften the ride.



The Prototype Referee's Eye-View for Rocky

We mounted the tiny video monitor (with magnifying glass) back on the camera and attached a pair of CP16 batteries to the can down below with the camera motor and the video boards. The commercial was a hit. The camera "ran" smoothly after dozens of '70's nymphets wearing Keds. Although uncertain as to the contents of the frame at any given moment, I had a great time and was learning at a frantic pace.

Early in 1975, we were engaged to shoot on Bound for Glory. Haskell was DP and had persuaded the late Hal Ashby to try an extravagant, time-consuming, expensive megashot with complete reliance on our contraption. We had only one throated magazine. I had never been on a feature set until I arrived in Stockton, CA and entered Ashby's enormous migrant worker camp with 900 extras. Neither had I seen a Chapman Titan Crane in person, prior to being put up on the platform 30 feet in the air, hands shaking violently, with Don Thorin, the regular operator, who said, "Look, that's funny, the camera isn't shaking!'

I got two rehearsals, and we

broke for lunch, during which I had a beer and Don calmed me down a bit. Then we made just three four-minute takes. (We had to run back to the darkroom for ten minutes in between each to reload the magazine). As the crane boomed down beside David Carradine, I got off and "walked" with him across the huge camp and most of the way back, dodging kids and crowds and tent-ropes and vehicles. In the end, I was numb with fatigue and nerves, and the whole crew flowed away to resume the regular work without a backward glance.

It was two nights later (just after asking the producer if he was the projectionist!), that I finally saw our amazing shot and received a standing ovation (with real clapping and real standing!) from the large crowd in the screening room. Amazing! I stayed on the set for several more weeks and made a few nice shots, but the unit had progressed into night shooting, and without a follow-focus system, it was clear that we weren't going to be of much use.

By an incredible coincidence, I was on Stage 14 at the Burbank Studios demonstrating the prototype,

when I was paged to the phone. Ellen Shire (our lady of the Art Museum Steps) had somebody named John Avildson on the other line. He had seen the demo and recognized Ralph Hotchkiss, my AC, and so had gotten my phone number. He was about to start *Rocky* in Philadelphia, wanted to use the invention, and <u>loved</u> that Art Museum shot!

I said, "Where is he?" She said, "You won't believe this... He's also at Burbank, on Stage 15!" I said, "Don't tell him I'm here, just have him to go out the door and stand there."

I put on the gear and ran up behind John while calling his name.

"We made the well known Art-Museum-Steps shots with Ralf running along beside me carrying two automobile batteries to jump-start the Arri!"

After a brief interlude of CPR, he was eager to discuss the possibilities for Steadicam on his film.

Avildson put me in touch with his production manager, Ted Swanson, who offered me "points" in the picture if I would work without salary. I, of course, didn't fall for that one, and insisted on being paid. At last count, that brilliant move has cost me \$180,000.

Shooting Rocky in Philadelphia was a great experience. The nonunion crew worked out of one beat-up motor home. Sly Stallone was a sweet, unpretentious guy, and the "traps" and "delts" of his ego had yet to be pumped up, so the work was a pleasure. Ralf Bode was DP, and John himself operated most of the conventional camera setups. My only problem was keeping the camera running in the cold. The two CP batteries weren't strong enough, particularly after a dent in the centerpost started rubbing against the internal motor shaft. We made the well known Art-Museum-Steps shots with Ralf running along beside me carrying two automobile batteries to jump-start the Arri!

Shortly thereafter, I began work

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with Conrad Hall on Marathon Man, on the streets of New York. We had a large crew and an enormous budget, and every tool known to man on the grip truck, so when I was used, it was because there wasn't any other known way of getting the shot. I made about ten shots per day, and the union guys from New York and LA were quite intrigued with the equipment. In fact, a number of the teamsters inquired if it would be effective underwater!

"Jan Harlan was unimpressed ...despite my explanation that the green glow was only a projector sending the image directly into my brain."

The new by-wire servo focus control arrived from CP, so my assistant had to stay with me as I jogged miles around the track in Central Park, keeping up with Dustin, outdistancing the AD's, until we stopped, exhausted, to wait for the unit to catch up. We made shots from the backs of flatbed trucks of Dustin and Billy Devane, and I pursued each of them on foot through the Fulton Fish Market at absolute top speed. I was 32 years old and in reasonably good shape, and that first rig from CP with its primitive arm was considerably lighter than the present Steadicam.

In case you're interested, my last Philadelphia prototype (with fiberoptic finder) weighed a total of 23 pounds! The CP version on Marathon Man weighed 31 pounds, and the final "CP-35" with its integral Arriflex on top weighed a total of 46 pounds. To put this in perspective, remember that several recent Arri BL IV Steadicams have been weighed in at almost twice that, or four times the weight of my original version!

Some of the best shooting on Marathon Man took place in the diamond district on 47th street, with the Steadicam preceding Sir Larry as he walked along surrounded by 150 fake "Hassidic" extras among hundreds of genuine Hassids. None of us could tell the difference, and we were constantly ordering around the real ones, or mistakenly deferring to

our own extras! In order not to draw attention to the camera, we tried a stunt that has passed on into legend, at least as told around the Steadi-Campfires of Rockport. We concealed the camera and sled in a garment bag with a large hole up top for the lens, and covered the rest with a three-armed sweater knitted by the wardrobe department to cover both my arm and the Steadicam arm alike. It looked quite startling and was much more noticeable than the unconcealed version. Picture a large three-armed man with a floating, whirring garment bag! Fortunately we were in New York and no one paid the slightest attention to it, except (here ends the truth...) one old woman, who put her ear next to the whirring garment bag, and shouted, "So, why should I be quiet? It's an Arri. It's M.O.S.!"

Rocky was shut down in order to reorganize back in LA as a big-budget union picture. Shooting began again with Sly bashing sides of beef in a cold locker, and moved on to the LA Coliseum for the fight sequences. We pioneered a new look for fight footage, and incidentally devised a method of recording the video on a portable Akai 1/4" recorder.

Marathon Man also moved back



The Prototype CP-35 Sled, Arm, & Haircut. Photo session, c.1975

to the west coast for the studio stuff and for a night of pickups in that area of downtown Los Angeles that so frequently doubles New York. Arnold's final Steadicam arm and the prototype of the "CP-35" sled were delivered in time to finish shooting both films, and they worked well, with only a few minor glitches. Initially, the brilliant "green screen" showed no image whatsoever during low-light shoots because a partlysilvered mirror had been inadvertantly installed in the camera's finder. This meant that I had nothing much to look at during the nights on Marathon Man. I remember that Jan Harlan, Stanley Kubrick's production manager, visited the set, and was impressed with the mechanical functioning of the machine, but was unimpressed by the screen image, despite my explanation that the green glow was only a projector sending the image directly into my brain.

You may be interested to know that even after all the publicity surrounding the shooting of those first three "Steadicam® films", the phone did not exactly jangle off the hook. I had enjoyed a sensational debut into the feature world, but I was frequently without work in those early days despite being the only game on earth, steadiness-wise. It's a very conservative business. The few that hang out over the edge and swing with a new technology tend to be either the greats or the crazies. The raggedy-assed masses seem to wait until there is a detectable current in one direction or another. If you have ever thought that new Steadicam operators might threaten your livelihood, let me say that my experience has shown otherwise. The Steadicam "current" really began flowing and grew exponentially when we started teaching lots of operators in 1980, and it is now growing faster than ever. I am convinced that each new member of our profession brings fresh energy to bear on its growth.

Those of you familiar with the Cinema Products Corporation of recent years may find the CP of yore, as described above, hard to credit. Well, it was indeed great. During its best years, the company was lean and fast and instantaneously responsive to their customers. So what happened?

I personally believe that most of their problems stemmed from a disastrous video camera deal in which NEC dumped some soon-to-beobsolete cameras and took out CP's capital base at a stroke. This may be an oversimplification, but the malaise and fear and hard times began at that time. It appears that the Steadicam trade suffered, in addition because of some internal corruption and mismanagement, and the results are all too well-known. Now, however, CP is on the way back. If you have not kept up with recent developments, the company has been acquired by Jac Holzman et al. and with a new infusion of capital, he and Ed DiGiulio appear to be turning the situation around with great speed. We sincerely wish them well.

Meanwhile, good luck, and always remember to ask for full-card above-title credit as follows: "A Steadicam® Film by <u>(insert your</u> name)!"

Garrett Brown

Tune in again for the next installment of the Saga, "Steadicam Rip-offs."



Workshops

Ken Robings will be teaching UCLA Extension class #476.33, "Becoming a Steadicam Assistant; A (hands on) Workshop for Camera Assistants," May 20 and 21. Call UCLA for details at (213) 825-9971.

Ken will be assisted by Paul Taylor, with guest appearances by Steve St. John, Toby Phillips, Jeff Mart, and Mark O'Kane.

The Steadicam Operators Association will hold its next Steadicam workshop the week of May 7 to 12 in St. Peter's, Pennsylvania. Space is limited to 12. Other sessions will be held in the summer, dates TBA. Call (215) CALL CAM for details.

European workshops will be offered this fall by Nicola Pecorini, including the first European Masters Workshop in October. See page 10 for dates. Call (02) 569 1223 (Italy).



Hat size patch scanned actual size. Steadicam is in green, over black, silver, and grey. It's hot! "Hat" and large sizes available. Order today.

Classifieds

For Sale: Canon 20-35mm f/3.5 PL Mount. This lens is very sharp, compact - 3 1/2", lightweight - 1 lb. 11 oz. \$2950. Contact: Century Precision Optics, 10713 Burbank Blvd., North Hollywood, CA 91601, ATTN: Jeff Giordano, (818) 766-3715, FAX: (818) 505-9865.

For sale: Steadicam Model II with 39 lb arm, vest, two batteries, chargers, cases, good condition, \$18,500. Steadicam Model II with 51 lb adjustable arm, DeRose battery mod, frame line generator, vest, two batteries, chargers, cases, arm just rebuilt. \$22,500. CP quickcharger for Steadicam batteries, \$2000. Call with your Steadicam needs, give us a chance to quote you on new systems. We are dealers for Cinema Products, Seitz, Russell, P.A.G., Coherent, etc. Call Derrick at Whitehouse A.V. (213) 479-8313, FAX (213) 477-7701.

For Sale: Cinema Products Servo control package. Excellent condition, reasonably accurate, Xmitter, receiver, 3 servo control motors, cables, batteries, and charger. Best offer. Contact John Corso, (212) 472-0309.

For sale: Steadicam Model I w/ DeRose mods, 55 lb adj. arm, breakaway vest, 4 batts, Seitz focus unit, 1 Heden motor, other acc's. Call Colleen Graham (416) 521-2920.

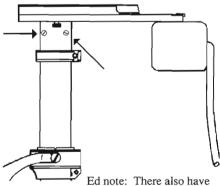
Centerpost Rehab

You know it, you use it everyday but deep down lurks a major problem, the "Steadicam Centerpost." You'll notice that welded to the top of the cerntrepost is a small plug. The camera mounting platform is attached to this post via the plug and weld.

The weld tends to have a lot of weight placed on it in both the high and low modes. In my case, the weld broke resulting in the camera being placed at my feet. Damage to the camera was, to say the least, non-avistent

Solution: Place three small (1/4") metal screws equally spaced around the centerpost to help hold the plug in place.

Michael Flylshtan



been complaints about the helicoil loosening in the top of the centerpost plug, so watch this area closely. If your rig begins to chatter, check the screw, helicoil, and the weld.