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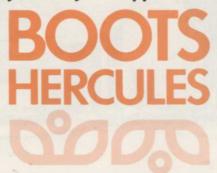
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down from his "throne" and ask him to hike up a mile and do some trimming and they just hurt and have a miserable day," says Halsted. "They're not used to it after riding around in a bucket all day."

Before Halsted began his own business, he worked with two other men in Eugene, OR, trimming trees for the city. They not only cleaned out the trees and made them structurally safe, but also raised them up for the streets, stop signs, and signal lights. When two of them quit, the city hired two others who were not as fast so it bought a bucket lift to speed up work. They did more trees, "but weren't trimming," Halsted says. "What they did was stop trimming and start line cleaning. The guys say now they don't have time to trim; they only have time to raise trees for the streets. We used to go through them and do them so they lasted five

Ultimately, however you trim, the bottom line depends on results. Halsted compares the appearance he brings out of a tree to what a barber can do to a head of hair, only in a sequence of years instead of weeks. The first impression is that you may have thinned too much, but then you realize you have enhanced. "They look handsome; you draw out the shape and a little limb structure, says. The second year they look very nice, the third year excellent, and by the fourth year they start to get thick and may need a new trim.

"I fought going into business for myself in the beginning. I knew that it would take me away from my work and I didn't want to be away from it. I was forced to because the people didn't have anybody." Halsted has since turned the business into a shared ownership corporation, making a man a director after two years of service. "I used to have 100 percent of the company and I gave 300 percent away and now I have 500 percent," he says.

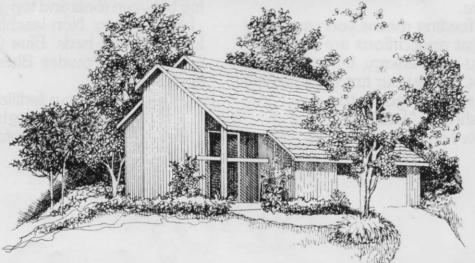
No matter how large the corporation grows and

how much work comes with it, Halsted will not be using many bucket lifts. "There have been many times in the last 10 years that I wanted to buy aerial equipment because I could make money off it," he says. "I saw what it had done to other people and I fought myself against it. It's like something you don't believe in. You know it's not right or but you believe in it and become stronger. After that point goes by, you can rationalize and come up with some theories.'

John Hawthorne, owner of Hawthorne Bros. Tree Service, has worked without a bucket lift, but since he purchased one in 1972, he's been using it constantly. His private tree care firm in Westchester County, NY, operates its 52-foot Hi-Ranger 100 percent of the time. "It's helped us tremendously," says Hawthorne. "It's worth its weight in gold."

Hawthorne would not disagree with Halsted that it takes a qualified person to take care of trees. He

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just feels there's no reason you can't use a bucket truck. "A man should know how to climb and at least the basics of pruning before operating a lift," says Hawthorne. "We don't send anybody up in trees who doesn't know how to work by hand first. I think that's basic to doing a good pruning job." Only in utility work, where the company is not concerned about structure, could a man get away without full expertise.

"I'd say about 75 percent of our jobs can be done with a bucket truck." Back yards do pose some limitations, says Hawthorne, but he has moved shrubbery, fences, and stone walls to get to a job

that involves a dangerous takedown.

In a case where an 80-foot oak tree had died three years ago and now hangs over a house with new residents who want it moved, it's too risky to send a climber amidst dangling branches and a cracked trunk. Hawthorne also wouldn't send a man up in a tree that's been hit by lightning. "It's possible that a man in a bucket truck could be hit, but he's got more control over where he is. He's not tied to the tree. He can get away. The chances aren't as good that the bucket truck will fall down as much as the tree."

In storm damage, it's the same case. Where there are broken or hanging limbs that have to be moved, it is easier to lift them off from a bucket truck. "A climber takes the chance of something falling on him," says Hawthorne.

At one time, it took three men, two ladders, and hedge trimmers three or four days to trim a 20-foot hemlock hedge. With a bucket truck, one man can

do the job in one day.

"When you have disease in a tree, such as cytospora canker on spruce trees, it's much easier to prune out when you're away from the tree because you can spot the diseased limbs and snip them away from the bucket truck," Hawthorne says. "It takes two men without a bucket truck. One has to be in the tree and one outside to spot where the disease is. The color on branches changes very subtly sometimes and a man outside can spot trees much easier. It's also easier to trim a Colorado blue spruce from the outside because it's so tight on the inside."

In most tightly branched trees, where a bucket couldn't maneuver well, Hawthorne would use climbers. "It's hard for a bucket truck to do maples, but any widely-spaced branching tree is easier to do on a bucket truck," he says. This includes red and white oaks, sycamores, and many others. "Either you put two climbers in a tree to prune it or you can use one man in a bucket truck to prune it by himself. It's much easier than having to go all the way down the trunk, out a limb, or swing across."

Hawthorne's crew also finds a bucket lift helpful for pollarding, shaping, and topping trees. The bucket maneuvers around the end of limbs for convenient access to the perimeter of the tree and gets to the top of a tree, which could never support a climber. Moving around the perimeter also helps combat a disease like twig gall on oak, which strikes the tips of branches. "A bucket operator can be in any position a climber can be in and he can

Continues on page 80



LIFT TRUCK SELECTION IS BASED UPON EFFICIENT USE

Lift trucks are not the total solution for every maintenace operation high above ground level, but they can bring a man close to the job in quick time. The arborists in the article in this issue about climbing or using aerial lifts speak about many of their advantages and disadvantages. Each person must decide whether the job and cost can justify their purchase. What follows should help you learn their uses and what, if you decide it is the right equipment, you have to choose from.

The straight-line bucket travel of the Hustler II and Linesman II series from Mobile Aerial Towers, Inc. enables fast, easy work along walls, wires, or poles. Outriggers or torsion bar provide a firm base for the continuous rotation shearball turntable pedestal, while beefed-up hydraulic elements, linkages, and bearing and pin components assure

dependable strength and safety.



Series 4F Hi-Ranger from Mobile Aerial Towers, Inc.

One-hand control permits the operator to precisely move the tower and do more efficient work. Its uncluttered design helps for safety and low maintenance. Upper and lower boom insulation and the insulating bucket effectively protect personnel against electrical hazards. Hustler II Series 4F reaches heights of 45 feet and the Linesman II Series 5F reaches heights of 57 feet. Utility models reach as high as 130 feet. (Circle 200 on free information card).

The 1000 Series Sky-Worker from Correct Manufacturing Corp. are lightweight, maneuverable, and efficient elevating and rotating work platforms. It



Sky-Worker by Correct Mfg. Co.

is possible to start trimming on the ground at one end of the truck and continue working in an arc until you arrive on the ground at the other end of the truck, without revolving the turret. The operator, in the bucket or work platform, has complete control at all times and is able to place himself anywhere he wishes as long as his boom length is sufficient.

An open center hydraulic system powers the trucks. Work platforms are normally 24 inches square inside and 38 inches deep (deeper are available). Capacity is 300 pounds. The company's Alpine models extend to work heights of 70 feet and stow compactly for over-the-road travel. (Cir-

cle 201 on free information card).

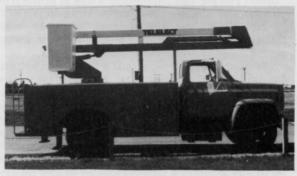
Calavar Corp.'s line of self-propelled aerial work platforms, called the Condor, comes in heights of 38, 46, 48, 56, and 66 feet. Its enclosed box-type frame construction (welded and gusseted on both sides) provides the rigid foundation which ensures strength, durability, and stability. Turrets are made of heavy plate steel, providing strength and rigidity.

Boom sections consist of all-steel telescoping members which slide on low-friction, high-density polyethylene wear pads. Dry boom construction eliminates the need for grease on the boom, reducing wear and maintenance problems. Platform capacity is 500 to 1,750 pounds. (Circle **202** on free information card).

The Hotstik LC from Pitman Div., A.B. Chance Co., is an aerial device that one person can operate with speed, safety, and sureness. It mounts on a small truck and squeezes into alleyways, scoots under shopping center service tunnels, and reaches out across ditches or roadways to handle aerial maintenance calls.

Some of its features include: continuous rotation turret, five electrical slip rings, Expoxiglas upper boom and lower boom insert, hydraulic pump kit, 42-inch deep fiberglass bucket, and remote stop/start system. It comes in 36 or 40 foot ranges and other similar models range from 32 to 41 feet. (Circle 203 on free information card).

The Telelect TN Series aerial devices are made for safety. Features include 16 feet of fiberglass dielectric protection in the upper boom, wellplanned controls and overrides, and other pro-



TN-Series Lift from Telelect Inc.

tective features. Three models-the TN50, TN55, and TN60-have working heights of 55, 60, and 70 feet respectively. Overall length is 28 feet, 5 inches, 30 feet, 8 inches, and 36 feet, 8 inches, respectively.

The boom design offers solid strength and rigidity without adding excess weight. The fiberglass section of the upper boom is made by a precise filament winding process that results in superior interweaving and interlocking of the glass fibers and resin matrix. Material handling capacities are 1,000 pounds plus two men in baskets, depending on platform configuration and boom position. The MC Series, also from Telelect, has a working height of 41 feet. (Circle 204 on free information card).

Reach-All Manufacturing & Engineering Co. makes aerial baskets with working heights from 34 to 150 feet and reaches to 50 feet. Other features include automatic hydraulic basket leveling, full pressure hydraulic controls, double cylinder articulation, and a highly-sensitive, precisionoperated single stick control. Models are also available with high voltage dielectric certification up

through 765 kvac.

Model 5032 holds 300-pound capacity in its endmounted basket, which has a three-sided working area. The basket is made with 8-foot clear span fiberglass insulation and has automatic hydraulic leveling. Full pressure hydraulic controls are at the base and basket. The boom moves flexibly with 360 degree continuous rotation. The torsion bar stabilizer is the only counterweight required. Manufacturer makes many other models. (Circle 205 on free information card).

Continues on page 36



Model 5032 by Reach-All.



Tree climbing tools increase safety margin

The safety record of arborists is proof of their professionalism. There is no place for carelessness in the business of tree trimming. Before taking the first step off the ground, the climber should thoroughly check to see that his equipment is complete and functioning properly, similar to a parachutist checking his gear before jumping.

Skimping on equipment is really skimping on safety. Some of the improvements in climbing gear include comfort, ease of use, and additional protection. Nothing is more disturbing to a climber than trouble with his equipment while in the tree. When a job takes two or more hours, a saddle can be unsafe just from a pain factor and lack of concentration on the job at hand. Safety equipment should be kept up to date to provide all the benefits of modern improvements.

For more specific information on safety standards of equipment and procedures, each climber should have a copy of the American National Standards Institute publication ANSI Z133.1-1979, developed with the assistance of the National Arborist Association. To obtain a copy write NAA, 3537 Stratford Rd., Wantagh, NY 11793, or ANSI,

1430 Broadway, New York, NY 10018.

If you don't meet the standards in this publication, then your climbing program is not as safe as it should be. A little precaution is cheaper in the long run than an injured employee or a careless public image.

Time Manufacturing Co also constructs aerial bucket lifts and the model SHV-32/36 comes in heights of 32 and 36 feet to the bottom of the bucket. Models are either insulated or all steel. The bucket holds 350 pounds and is positive leveled. The lift has full hydraulic controls as well as hydraulic tool power in the bucket. A PTO driven pump or engine generator provides the hydraulic power.

Engine start-stop from the bucket is standard and is complimented by an automatic throttle control system. Accessories commonly used on both insulated and steel aerial devices of this height are offered. (Circle **206** on free information card).

The JLG Industries, Inc. Lift model 80F is a sturdy, safe, dependable way to put workers and their tools directly to above-ground work areas up to 86 feet. With the use of "X" type outriggers for stability and proportional controls for smooth boom operations, the 80F lets the user maneuver over or under obstructions without disturbing production lines.

All movements are controlled by one person from the work platform: travel forward or backward, movement up and down, telescope in or out, and rotate 360 degrees continuously in either direction. The lift carries a personnel and tool load of up to 1,000 pounds (500 pounds at maximum horizontal reach) and travels along the ground up to 3 mph. (Circle **207** on free information card). **WTT**



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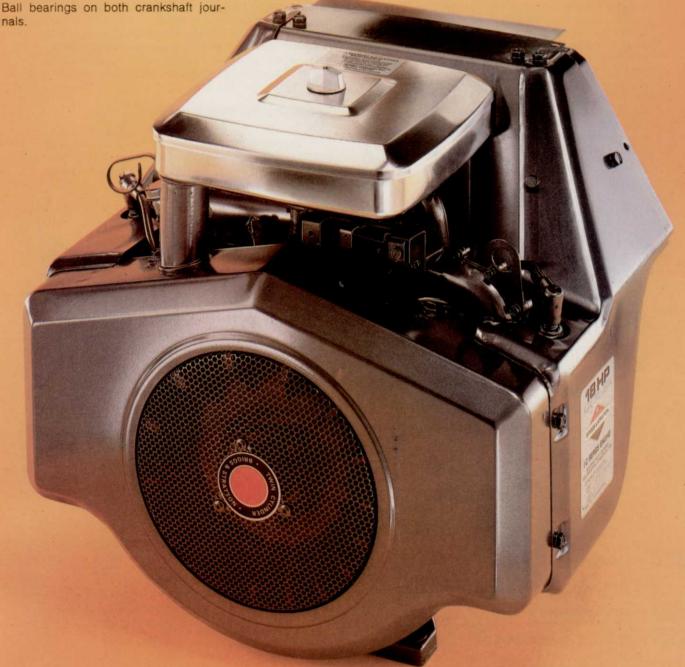
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NO FRILLS FUTURE MAY REQUIRE CLOSER ATTENTION TO TURF SELECTION

By Robert W. Schery, Director, The Lawn Institute

Maybe it's just as well we don't see the future clearly. We just might dash for cover and try nothing! Although the crystal ball be clouded, past happenings do shape the future and we can draw inferences from them. An era of affluence in America is almost certainly tapering off, and this will appreciably influence those minding turf.

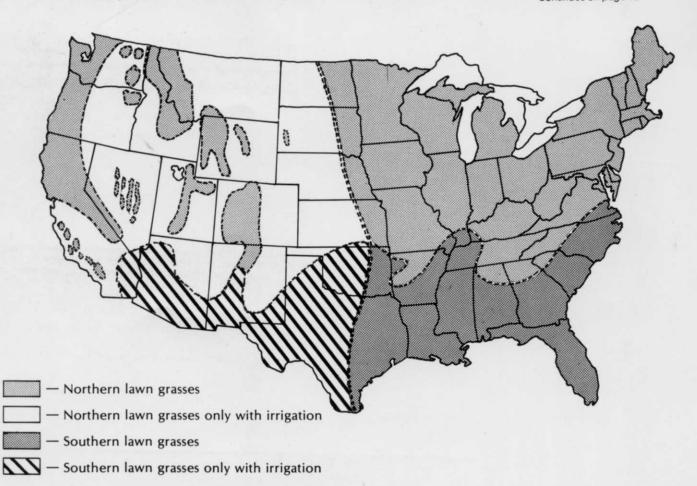
Except, perhaps, for a few luxurious sportsfields supported by huge spectator crowds (and often TV revenues), we can expect stringencies. Since budgets seldom keep pace with costs and taxpayer recalcitrance to government spending is commonplace, the broad sweep of park and recreational grass management will need to increasingly concentrate on essentials. Necessary measures will need clarification; frills may have to go. Know-how and professionalism no doubt will be rewarded, but I foresee impatience with wastefulness in a world that has its fill of shortages and disruptions.

To deal precisely with "essentialness," one must be cognizant of today's dramatis personae of the turf. Only by knowing the grass is it possible to plan its care intelligently, and to decide the degree of flexibility warranted under prevailing local conditions. Surely mowing, weeding, and in many climates, watering, cannot be denied, although increased efficiency in their practices may be called for. Ceasing fertilization would sacrifice a most effective maintenance technique, but plantings of lesser importance can hardly be expected to receive the generous feeding advised by turfgrass authorities.

Yet turf can be kept quite attractive as well as useful under minimal maintenance. There has been a tendency, I think, towards oversolicitousness, and overly complicated programs in the tending of turf. Under a scenario likely for the future, intensive care may be ruled out due to the law of diminishing returns for all except specialty plantings.

Turfgrasses, the modern image

Of course any grass must be adapted to the climate where used. The map of the United States shows major regions dictated by warmth and rain-





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