

SPECIFICATIONS

CARRIER

The carrier is for general purpose handling applications. It is 26 ft long with an open cab at one end. The model AR 3060 Arva Handscaler fits on the body of the carrier. The work-platform assembly is removable from the carrier by pulling four (4) frame located pins and disconnecting hydraulic lines at carrier pivot. Outriggers are an integral part of the platform frame.

OUTRIGGERS

Due to carrier load limitation, four (4) outriggers that provide stability, are supplied to prevent work platform overload, 1200 pound limit up to 60'-0" radius.

MOUNTING

The boom turret end of the platform is reinforced to withstand the loading and incorporates the boom pedestal support. The boom is mounted on an twenty six (26) inch high pedestal (above deck), which extends downward becoming an integral part of the platform frame. The pedestal-mounting flange is round, matching the bolt pattern required by the 36" OD swing bearing.

BOOM

The boom is four section telescopic full power hydraulic.

The four (4) boom sections are fabricated utilizing a rectangular box section design. The steel used in fabrication is designed for operation in cold ambient temperatures of -40° C.

The inner three sections are arranged as a package with the fly section and outer mid section extended and retracted by a "piggyback" twin boom extension cylinder. The base of this package is the inner mid section which is connected to and moved by a bottom mounted extension cylinder.

To eliminate hose reels and unnecessary hydraulic plumbing oil is transferred through the cylinder rods of the boom extension cylinders for the inner mid and outer mid boom extensions. The boom extension system is fitted with dual circuit double counterbalance valving to hold the boom in the extended positions above horizontal and prevent extension when in positions below horizontal.

The boom extension cylinders are sized to permit telescoping with rated load to maximum extension. Replaceable nylatron wear pads are used on the top and bottom of each boom section. Adjustable, replaceable, nylatron, side thrust wear pads are used on the outer end of the base, and mid sections.

BOOM LIFT

The boom lift function is powered by two (2) cylinders, vertically positioned, to give maximum clearance when handling loads with fully retracted boom.

Holding valves are bolted to the cylinders to prevent accidental boom lowering due to hose or tube damage. Boom extension cylinders have double holding valves for positioning of boom for either positive or negative boom

angles.

SWING

The swing function utilizes a shear ball type swing bearing. A high torque Gerotor style motor driving through a planetary gear reduction provides smooth positive swing operation.

A fail safe, spring applied, hydraulically released disc brake is located between the drive motor and gear reduction. The brake is an integral part of the gear reduction. (Ref Section 8).

High strength bolts hold the upper turret structure to the shear ball bearing and to the base pedestal.

Swing rotation is limited to 270 degrees. Hydraulic hoses and electrical wires in the pedestal have additional length to allow for swing rotation

OVERLOAD SYSTEM

An overload system is incorporated into the design of the crane function of this machine to prevent imposing an overload. See section 8 of this manual for more detail on load monitor and anti-two block system.

CONTROLS

The weatherproof radio remote control console is bolted in position for operator to utilize while in the basket. Sensor in the remote console, controls the basket levelling.

Full operation of all work-platform functions is available from the radio remote control station located in the work-platform. The remote console has dead man controls on the boom

functions with an emergency stop button, diesel engine start, run, emergency power unit start-stop and fire suppression.

Boom functions are controlled by single axis-type controllers. Swing is controlled by a single axis controller.

POWER SOURCE

Hydraulic power for the work-platform operation is provided by one of three (3) sources of power. Mine electrical power, diesel engine power or emergency battery power. The lower hydraulic control station is fitted with manual levers on the hydraulic valves which are located near the left front on the support structure. The over-ride button must be held depressed for work platform operation from the lower control station and for crane overload conditions.

WINCH AND CABLE

The winch is rated for 15,000 pounds single line pull on first layer. Cable supplied is 250 ft of 3/4 inch 6 x 37 IWRC with wedge and socket.

GENERAL

Boom horizontal;
Extended radius: 63'-5"
Retracted radius: 23'-5"
(from boom pivot to basket pivot)

Height overall: 11'-6" (Boom horizontal from ground)

Length overall: 42'-0" (Boom retracted)

Function speeds and times based on 24 GPM system flow :

Swing speed: 1/2 rpm

Boom luffing(-6° to +70°)
Up: 24.63 sec
Dn: 27.66 sec
Boom extension speed
extend: 2 min. 18 sec.
retract: 2 min. 44 sec.

Swing: 270 degrees, 135 left, 135 right

Boom elevation: minus 5 to plus 70 degrees.

Boom tip height @ full extension: 60 ft above ground.

Boom Assembly Weight : 9,680 lbs
Fuel Tank Capacity - 40 gal US

Hydraulic Reservoir Capacity-50 gal US

Pedestal Height: 26" above deck

Outrigger Spread
Side to Side: 16 ft
Front to Back: 15 ft

Outrigger Pads: 16" square

Controls:
Manual at support
deck: lever with override button
Radio Remote in work platform

COMPONENT WEIGHTS AND SIZES

Boom assembly (with oil in cylinders CG
112" from pivot pin centre line)
- 9,680 lbs (22'-0" x 3'-3" x 1'-6")

Turret Assembly
- 2,600 lbs (7 ft x 5 ft x 5 ft)

Platform Assembly (with OR cylinders,
less OR arms, with swing bearing)
- 8,360 lbs (5'-6" x 4'-2" x 13'-0")

Outrigger arms (each)
- 594 lbs (6'-0" x 1'-4" x 1'-2")

Counterweight
- 6100 lbs (2 ft x 4 ft x 2 ft)

Axle Loadings
Front - 23,690 lbs
Rear - 35,464 lbs
Total - 59,160 lbs