

Link-Belt®

HSP-18

Hydraulic Self-Propelled Crane

18-ton (16.33 metric ton)

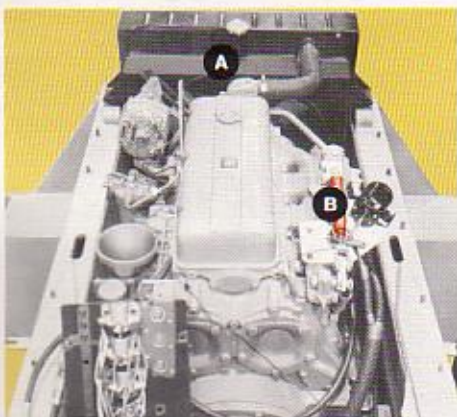
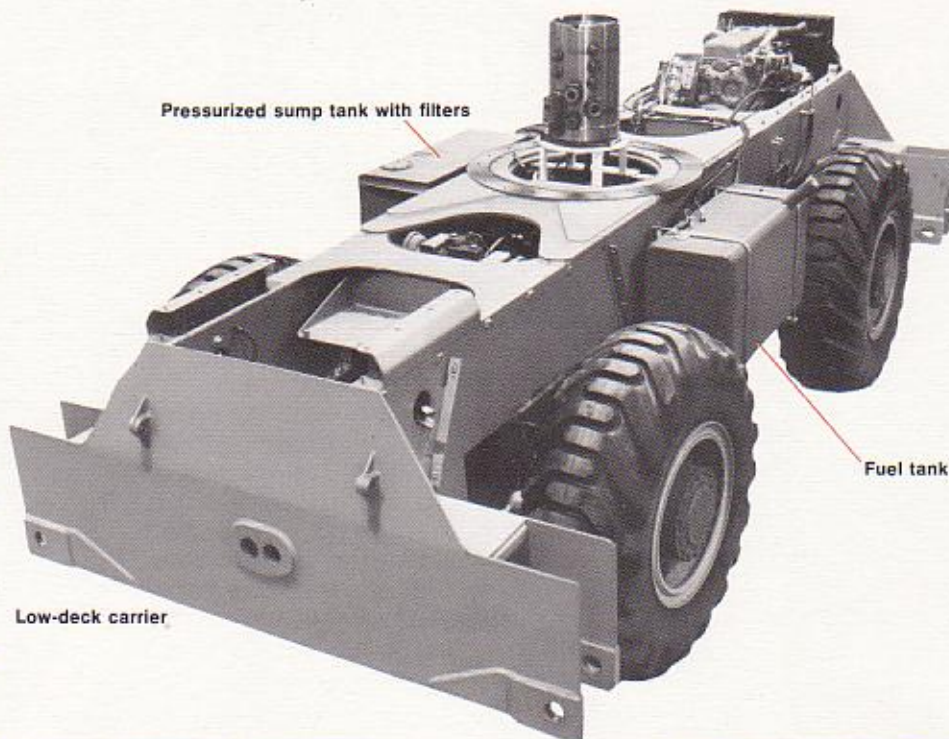


FMC's new hydraulic self-propelled crane with low-deck carrier design

Results in greater travel and operating stability

FMC now offers the new 18-ton (16.33 metric ton) Link-Belt® HSP-18 hydraulic self-propelled crane. The carrier design concept features a **low-deck carrier** with lowered **diesel engine mounting**. The result is a lower crane center of gravity for greater travel and swing stability and increased on-tire lifting capacity in the operating ranges. Also, results in increased visibility.

The hydraulic system oil cooler (A) is standard. Air cylinder (B) controls the diesel engine throttle. It is ideal for initial engine start-up when air pressure is low, providing a high idle engine speed. Air pressure for brakes, air throttle, transmission shift and rear axle disconnect is from the engine-driven air compressor. Engine, radiator and transmission are rubber mounted to the frame. A sliding engine hood allows for access to the engine.

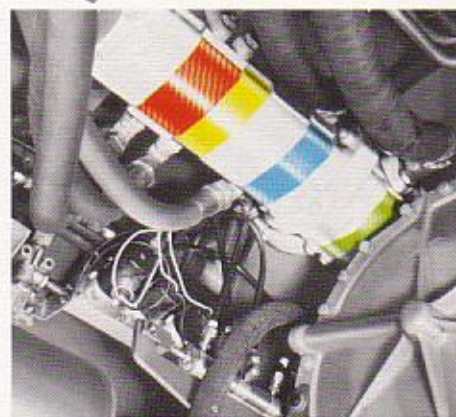


Diesel engine mounting

The HSP-18 is designed for maneuverability as well as for lifting. The carrier is equipped with a 4-speed (two

range) automatic shift **transmission** controlled by a single operator control lever. An air cylinder shifts the transmission into reverse, neutral, low and high speeds.

For maneuverability, **hydraulic steering** with 2-wheel, 4-wheel, and crab-style steering are possible. All are coordinated with the steering wheel. Steering mode selection switch, plus visual rear wheel position indicator are located in the control console.

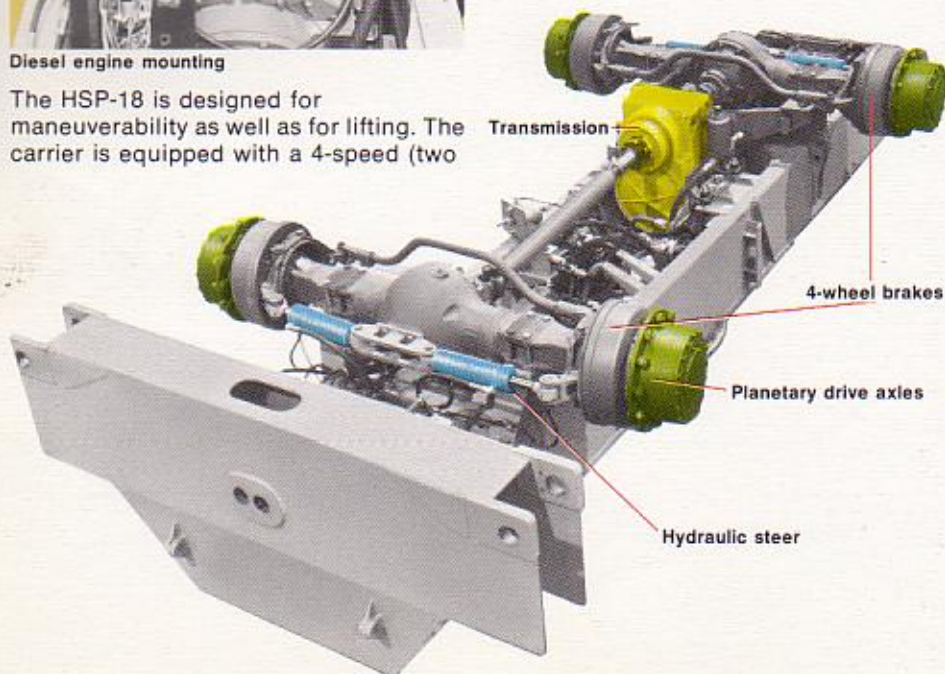


Hydraulic pumps

Hydraulic, air assist, **4-wheel service brakes** with front wheel spring applied, air released emergency and parking brakes are standard.

The front and rear **planetary drive axles** are equipped with a high traction differential. They allow one wheel to assume up to 60% of the available axle torque for traction on uneven ground.

The gear-type **hydraulic pumps** are powered by an extended engine/transmission drive shaft for providing a continually rotating pump drive.



Revolving upperstructure with accessible rope drum units

Modular, humanized and stylized operator cab

The Link-Belt® model HSP-18 **revolving upperstructure** design provides increased accessibility to the rope drum and swing units, plus extremely good 360° visibility.

Power for the rear rope drum unit is from the bi-directional hydraulic motor (A). Single speed motor is standard; 2-speed, optional.

Power for the optional front rope drum unit is from the single speed, bi-directional hydraulic motor (B).

Hydraulic motors are connected to a planetary reduction unit (not visible) which are mounted inside and connected to the rope drums. An automatic spring-applied, hydraulically released load holding brake (C) is standard. Holding valve (D) prevents uncontrolled load lowering. The holding valve is direct connected to the hydraulic motor.

The 360° swing power is from the bi-directional hydraulic motor (E) into the FMC reduction unit (F), and then into the swing shaft/pinion. "Free swing" or

metering swing speed is possible. Results in smooth swing acceleration and deceleration. Also helps prevent boom side load when lifting off-center loads from the ground. Manually controlled swing brake (G) plus a pin-type swinglock is standard. A 360° swing lock is optional.

Operator control valves (H) are conveniently located for service accessibility. Centralized and easily accessible hydraulic circuit pressure checks are standard.

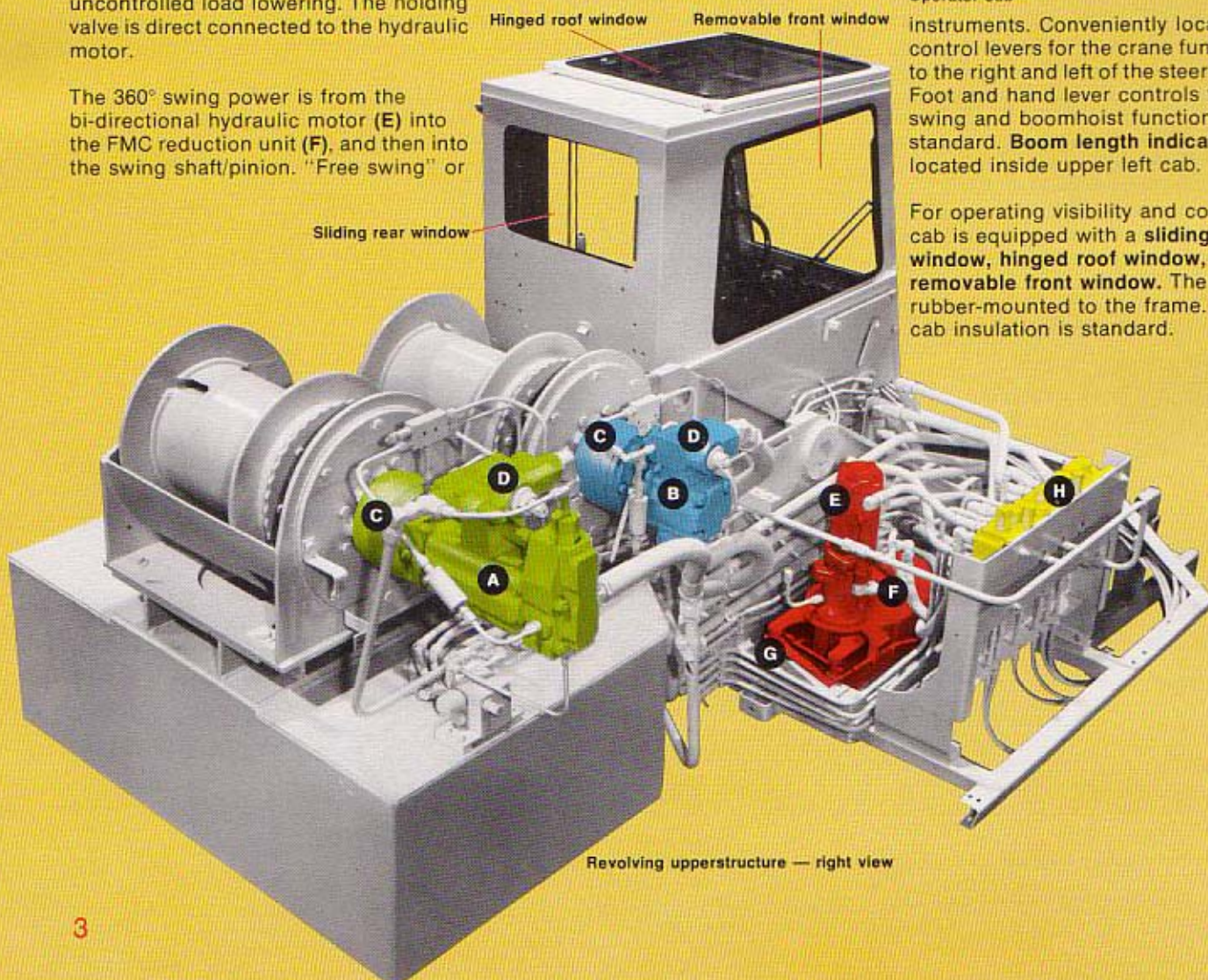
The modular and humanized **operator cab** is the result of FMC's styling and design engineer group. Directly in front of the operator is the luxurious yet functional combination of operator control console and full complement of



Operator cab

instruments. Conveniently located control levers for the crane functions are to the right and left of the steering wheel. Foot and hand lever controls for the swing and boomhoist function are standard. **Boom length indicator** is located inside upper left cab.

For operating visibility and comfort, the cab is equipped with a **sliding rear window**, **hinged roof window**, and a **removable front window**. The cab is rubber-mounted to the frame. Interior cab insulation is standard.



Revolving upperstructure — right view

Unique boom design embossed with diamond-shaped depressions

Main boom 25' - 60' (7.62 m - 18.29 m) plus 20' (6.10 m) fly

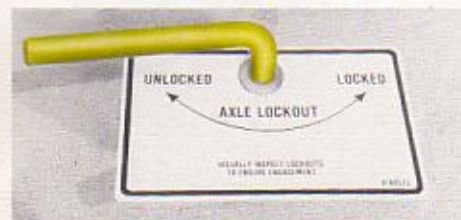
The HSP-18 is equipped with a 3-section, 25' - 60' (7.62 m - 18.29 m) power boom. Also available is a 20' (6.10 m) fly, which will swing into the stored position to the right side of the base boom section. The fly can be easily stored with the flared centering device for fast fly-to-boom storage.



Rear axle locked in



Rear axle locked out



Axle lock out control

The HSP-18 rear axle oscillates when travelling over uneven ground. For a rigid lifting base, the rear axle may be **locked in** and **locked out** by manually controlled locks.

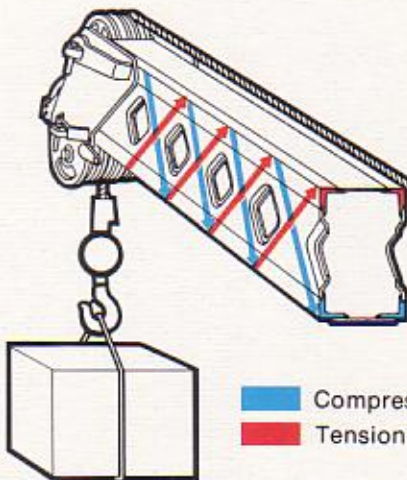
Hydraulic pivot-type outriggers are standard. **Outrigger controls** are located in the operator's cab. Floats are hinged to the ends of the outriggers.



Outrigger controls

The new standardized electrical circuit identification system has been incorporated in the design of the HSP-18 for increased performance and simplified service. This system employs manual reset circuit breakers instead of fuses. A carrier **storage compartment** is standard.

FMC's exclusive boom design (patented) is an engineering achievement. The design utilizes minimum gauge steel plate. Side plates are embossed with diamond-shaped depressions. This allows the use of lighter weight plate while increasing boom strength and stiffness. The diamond shape allows the natural flow of boom stresses (both compression and tension) and thus avoids high stress risers when a load is lifted.



Compression
Tension

FMC's exclusive boom design (patented)

To eliminate undesirable boom corner welds, the steel plates are welded to specially machined corner angles for greater strength and reliability. Also, for lubricating the rear boom wear shoes, fittings are mounted externally.



We are constantly improving our products and therefore reserve the right to change designs and specifications.

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