

**NEW BIG ON AND OFF-ROAD DUMPER**



# **BM·VOLVO DR 860**





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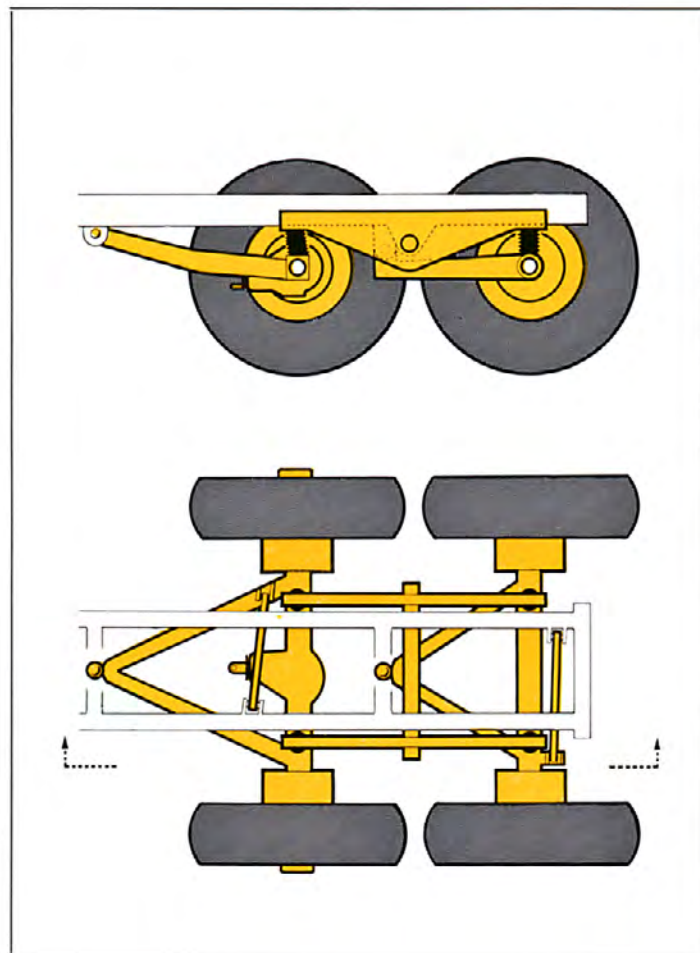
# MASTER OF ROUGH GOING

Bolinder-Munktell's DR 860 dumper is designed to match increased demands for output, efficiency and profitability in transporting earth, gravel and blast rock. Optimum combination of features gives the DR 860 unmatched mastery under bad ground conditions. Every part of the machine is stringently tested before assembly to ensure the highest standards of quality and performance throughout. In the DR 860 engine power, weight distribution, articulated steering and tandem suspension act in happy balance to open ways where the going seems impossible.



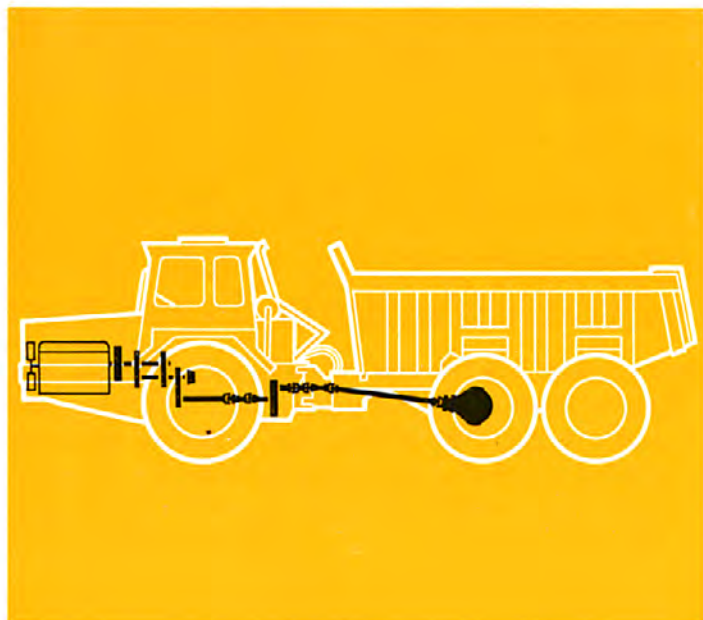
## NEW, EFFECTIVE TANDEM AXLE SUSPENSION DESIGN

The design of the tandem axle suspension plays a key role in off-road performance. The problems have been solved on the DR 860 in a simple yet ingenious way. There is no direct spring suspension between the frame and the axles. Instead two pivoting bars are used to equalize the weight distribution on the two axles. Both axles have basically similar suspension with triangular bars, hinged to the frame centre by ball-joints. Cross rods then keep the axles in correct positions under the frame.



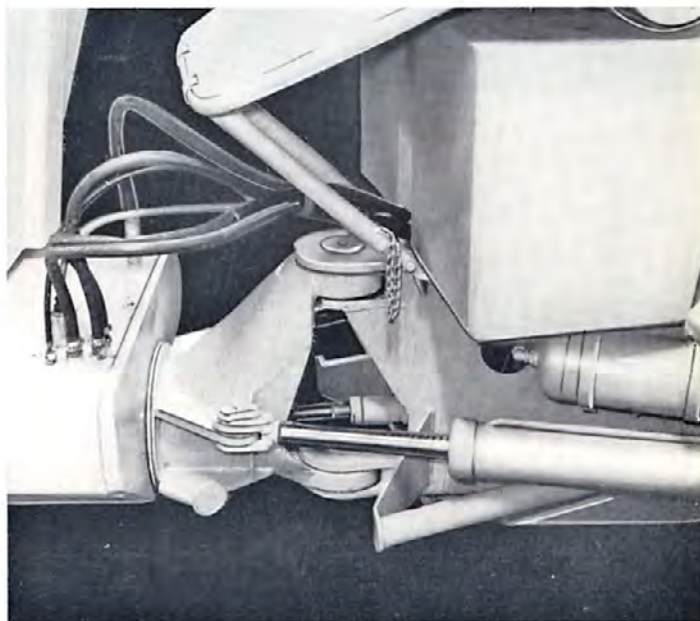
## 4-WHEEL DRIVE Maximum use of engine power

With the 4-wheel drive engaged the DR 860 keeps moving regardless of uneven or slippery surfaces. A useful feature is the ability to engage and disengage 4-wheel drive while moving under full power in low gear. Both live axles are equipped with differential locks; a warning light in the cab indicates when the rear lock is engaged.

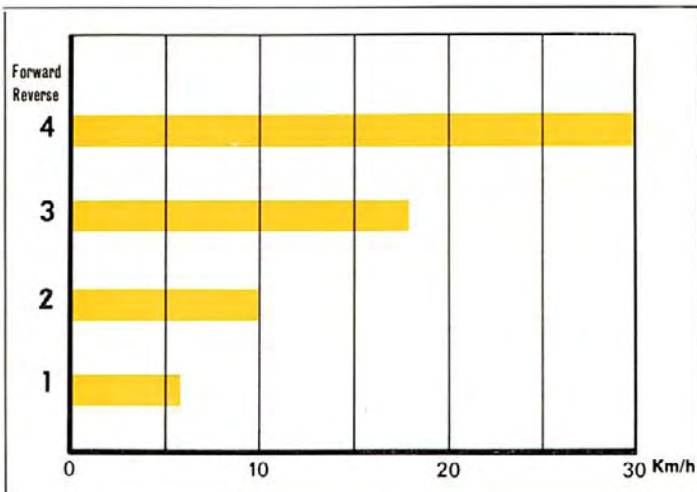


## STEERING AND ARTICULATED COUPLING

Articulated frame steering implies of course the angling of the engine unit relative to the trailer, the steering wheel controlling a valve that distributes oil to two double-acting hydraulic rams. A flow regulator keeps speed of action of the rams relatively constant despite engine speed changes. The relative oscillation of front and rear units is theoretically infinite. In practice this means that the front wheels always retain ground contact. The system is very supple and provides full traction even in sharp turns on uneven ground.



**A BIG DUMPER – POWERFUL, PROFITABLE  
WHATEVER YOU HAUL – EARTH, ROCK, GRAVEL**



## **GEAR RATIOS NEATLY COVER THE RANGE**

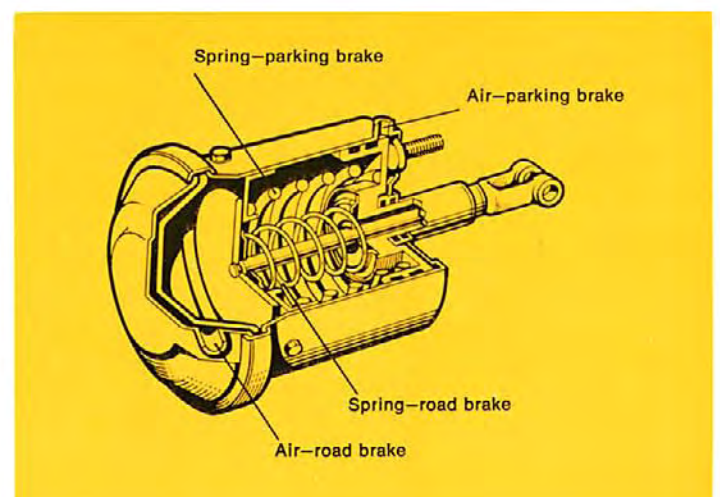
The torque converter in the DR 860, tailored to haulage work, improves fuel economy and is combined with a hydraulically operated Power Shift gearbox. The gearbox provides two low-range speeds and two high-range speeds, both forward and reverse, which very neatly cover the speed range, 0–18½ mph (0–30 km/h).

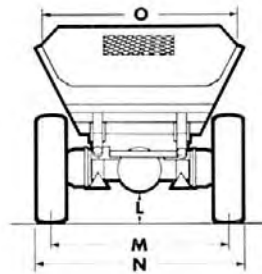
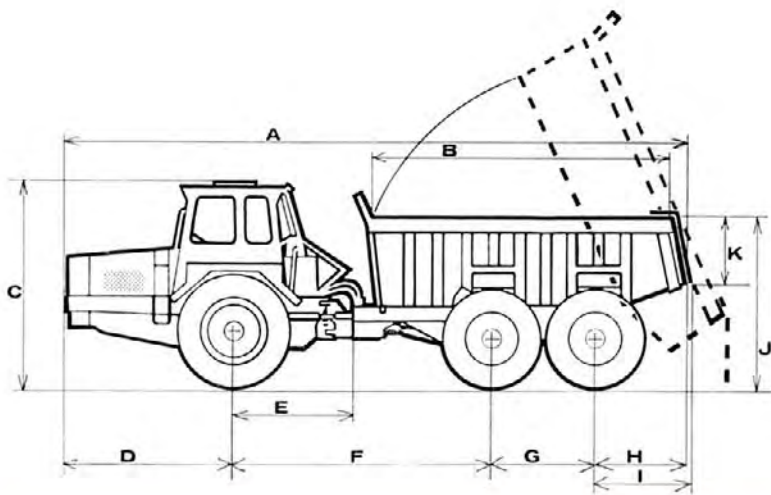
# BM·VOLVO DR 860



## TOP-CLASS BRAKE EQUIPMENT

The brake equipment leaves nothing to be desired: disc brakes at the front, drum brakes at the rear, all operated by a pneumatic/mechanical system. The trailer drive wheels feature spring-operated fail-safe action in the event of damage to any air line. The spring-operated brakes also serve as effective parking brakes.





## SPECIFICATION

### General data

Service weight .....	11.4 tonnes	11.2 tons
Load capacity, heaped, SAE .....	10.5 m <sup>3</sup>	13.7 yd <sup>3</sup>
Length .....	9.45 m	31 ft
Width .....	2.5 m	8 ft 2 1/2 in
Height to top of body .....	2.3 m	7 ft 6 in
Overall height .....	2.8 m	9 ft 2 in
Max. steering angle ..	50°	
Turning circle radius ..	6.4 m	21 ft
Max. tipping angle, ap- prox. ....	70°	

### Engine

Type .....	Diesel, Volvo D 50 A	
Rating SAE at 2400 rev/min .....	110 hp	
Max. torque SAE at 1600 rev/min .....	36 kgm	260 ft-lb
No. of cylinders .....	6	

### Hydraulics

Pump .....	Vickers 26 V 21 A	
Working pressure ....	100 kg/cm <sup>2</sup>	1420 psi
Capacity at 2400 engine rev/min .....	140 l/min	31 Imp. gal/min

### Transmission

Torque converter with freewheeling stator		
Make .....		
Power Shift gearbox with 4 gears both forward and reverse		
1st gear .....	0-6 km/h	0-3.7 mph
2nd gear .....	0-10 km/h	0-6.2 mph
3rd gear .....	0-18 km/h	0-11.2 mph
4th gear .....	0-30 km/h	0-18.6 mph
4-wheel drive engaged and disengaged by pneu- matic/mechanical control.		

### Brakes

Pneumatic/mechanical brakes acting on all wheels.  
Parking brake: mechanical, acting via brakes on  
front unit and forward trailer axle.

### Tyres

Front: .....	18.4 -34/14 IND SWU
Rear: .....	14.00-24/40 MICH XR

### Electrical system

Make: .....	Bosch, 12V
Battery capacity .....	152 Ah
Generator .....	Motorola, 475 W a. c.
Starter .....	4 hp

### Compressed air system

Compressor, make ....	Bosch SV/DT. 120-125/l	
Compressor displace- ment .....	125 cm <sup>3</sup>	7.63 in <sup>3</sup>
Working pressure .....	5.8-6.2	825-880
	kgf/cm <sup>2</sup>	lbf/in <sup>2</sup>

### Capacities

Hydraulic system .....	230 l	50 Imp. gal
Hydraulic tank .....	200 l	44 Imp. gal
Fuel tank .....	225 l	49 Imp. gal
Anti-freezer pump ....	0.41	0.7 pint

### Weight distribution

	Axle load		Tandem axle load		Gross weight	
Machine, unloaded .....	6,200 kg	13,700 lb	5,200 kg	11,500 lb	11,400 kg	25,100 lb
With 12 500 kg (27 500 lb) payload .....	7,900 kg	17,400 lb	16,000 kg	35,300 lb	23,400 kg	52,700 lb
With 15 000 kg (33 000 lb) payload .....	8,000 kg	17,600 lb	18,400 kg	40,600 lb	26,400 kg	58,200 lb

The manufacturer reserves the right to change specifications without notice.

### Compressed air receiver,

engine unit .....	20+6 l	0.7+0.2 ft <sup>3</sup>
Ditto, trailer .....	20 l	0.7 ft <sup>3</sup>
Oil in reduction gear- box for 4-wheel drive ..	1.6 l	2.8 pints
Lub. oil in engine and transmission .....	17 l	3.7 Imp. gal

### Dimensions

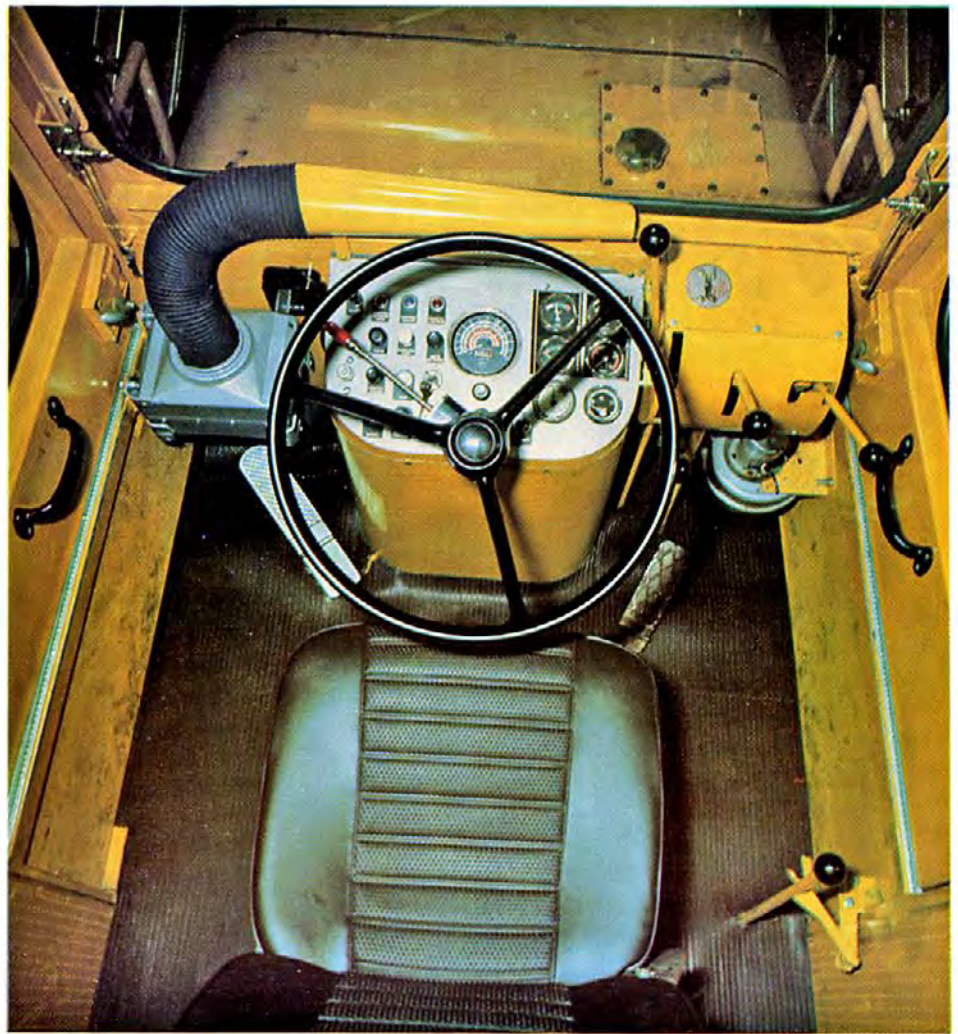
A .....	9.45 m	31 ft 0 in
B .....	4.24 m	13 ft 11 in
C .....	2.80 m	4 ft 2 in
D .....	2.62 m	8 ft 7 in
E .....	1.28 m	4 ft 2 in
F .....	4.0 m	13 ft 1 in
G .....	1.54 m	5 ft 1 in
H .....	1.25 m	4 ft 1 in
I .....	1.29 m	4 ft 3 in
J .....	2.30 m	7 ft 7 in
K .....	0.75 m	2 ft 6 in
L .....	0.38 m	1 ft 3 in
M Track front .....	2.00 m	6 ft 7 in
M rear .....	2.10 m	6 ft 11 in
N .....	2.50 m	8 ft 2 in
O .....	2.40 m	7 ft 10 in

### Optional extras

Tailgate  
Wear strips for rock haulage



# SPACE AND COMFORT FOR THE DRIVER



## SAFETY CAB

The cab is designed in detail to allow the driver to concentrate entirely on the job in hand. All controls and instruments are arranged compactly within convenient reach and sight. The driver's seat offers a wide range of individual adjustment and features parallel-linkage suspension and hydraulic shock absorbers. The flat floor allows full freedom of movement. The high standard of comfort is completed by insulating the cab from the vehicle frame and engine compartment by means of rubber cushions.

The speed selectors and 4-wheel drive lever are arranged in a special panel to the right of the steering wheel. All these levers are easy-moving, with a short positive action.

The airy, comfortable cab provides excellent visibility and ventilation. The doors can be secured in the open position and the windscreen adjusted to any desired angle.

Safety is assured by the crash-tested cab and the strong rear window with a sturdy mesh guard. Man-sized handgrips and steps simplify access.



## BM-VOLVO DR 860 DUMPER SPEEDY AND NIMBLE WITH A TIGHT TURNING CIRCLE AND EASY STEERING

The tight turning circle and easy steering, combined with Power Shift transmission, make the DR 860 a speedy and nimble mover even in city traffic. A safety feature is the good view of his own machine and other traffic enjoyed by the driver of the DR 860.



- Torque converter: means that tractive effort increases with the load.
- Well-planned cab interior: means first-class comfort
- Hydraulically operated gearbox (Power Shift): means fast no-pedal shifts
- Safety cab and air brakes: mean added safety
- Efficient tandem design: means maximum performance on uneven ground



**BOLINDER-MUNKTELL**

A member of the Volvo Group, Eskilstuna, Sweden

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